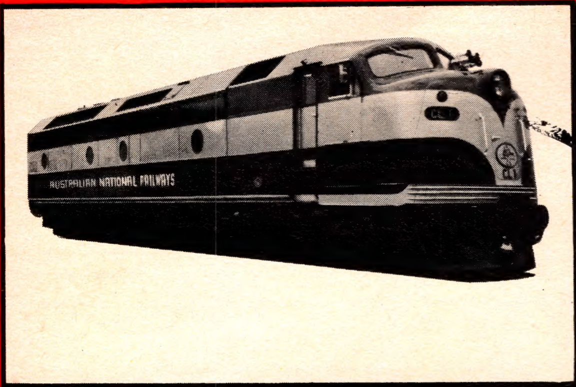
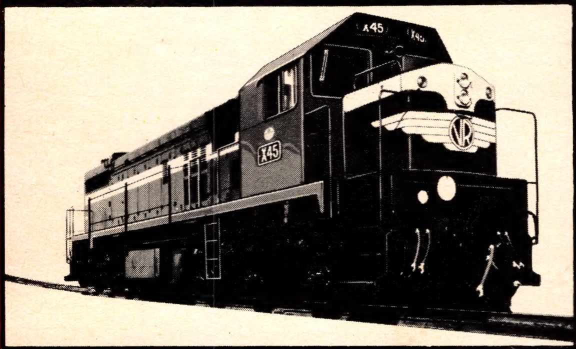
Railways of Australia

Network

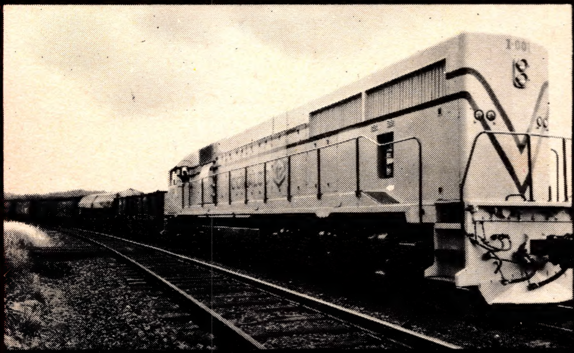
Vol. 16 No. 10 December 1979/January 1980 Price: 60 cents



AUSTRALIAN NATIONAL RAILWAYS CL Class 3300/3000 HP



VICTORIAN RAILWAYS X Class 2200/2000 HP



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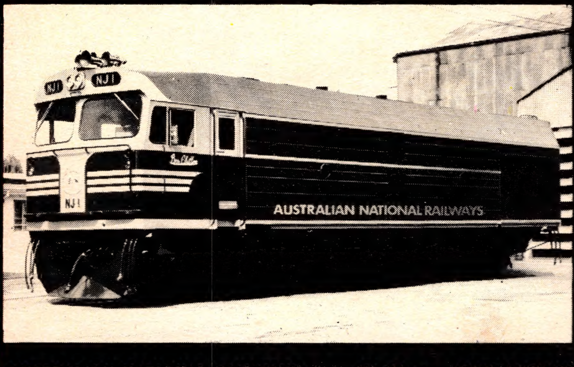

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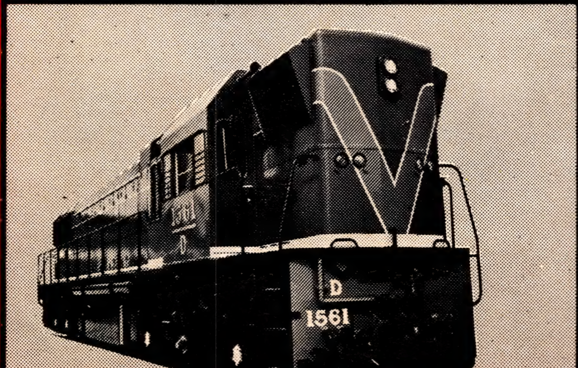

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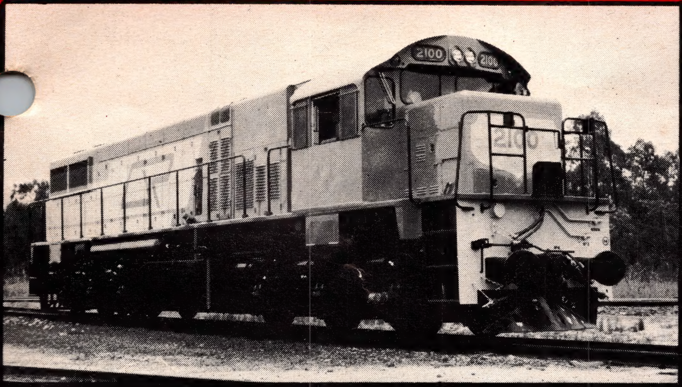
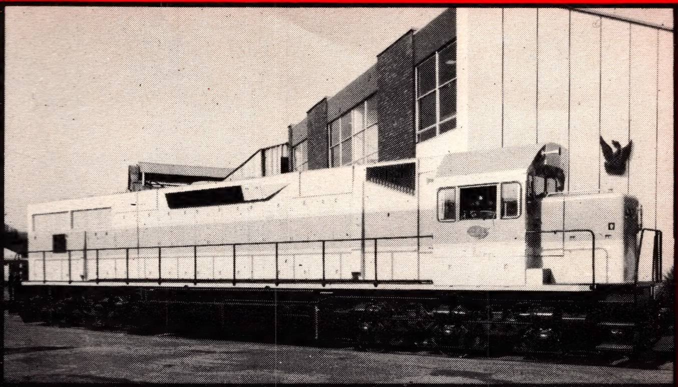


Q.R. Model GL26C 2200/2000 HP



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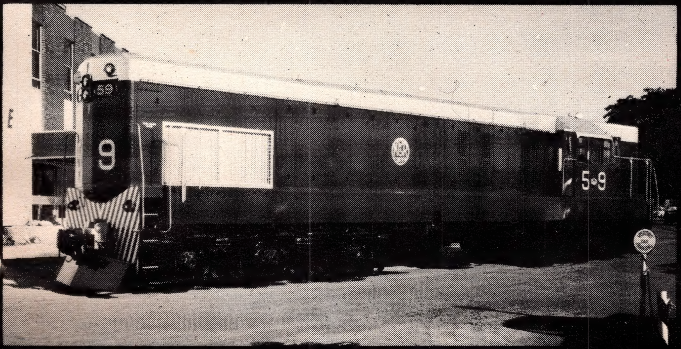

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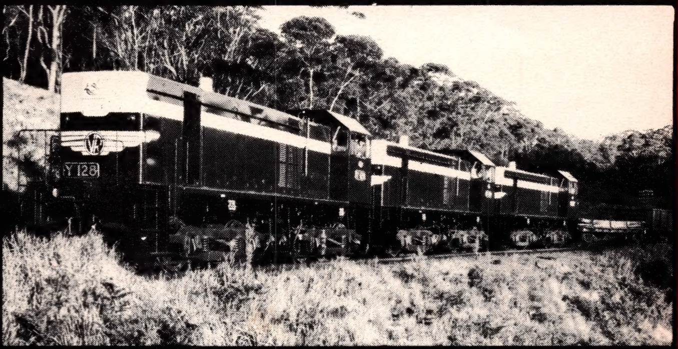
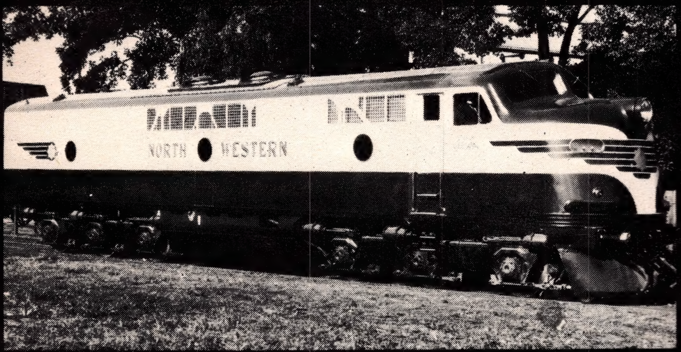
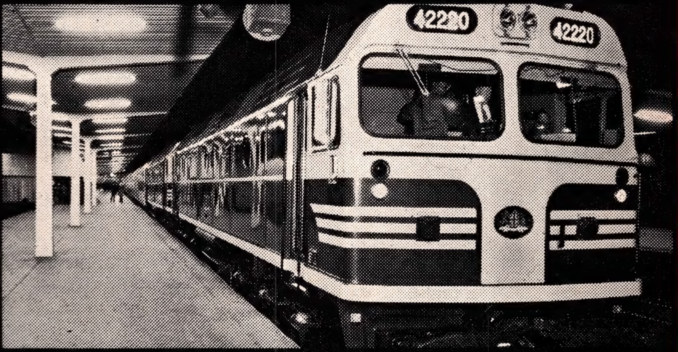


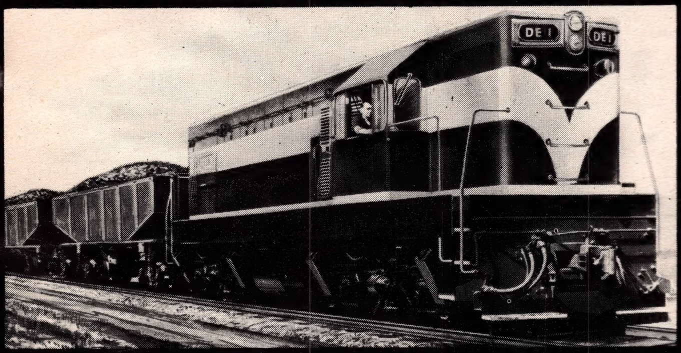
VICTORIAN RAILWAYS Y Class 650/600 HP



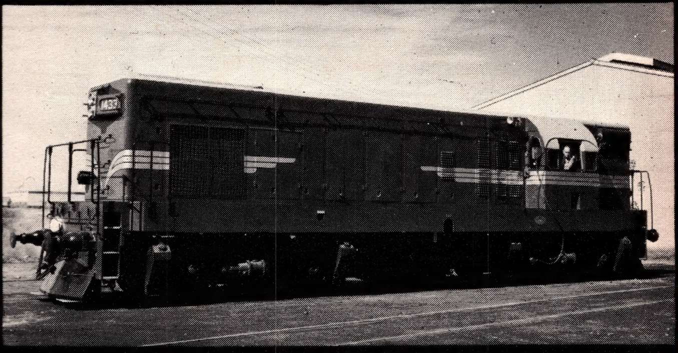
PAKISTAN WESTERN RAILWAY Model ML3 1650/1500 HP



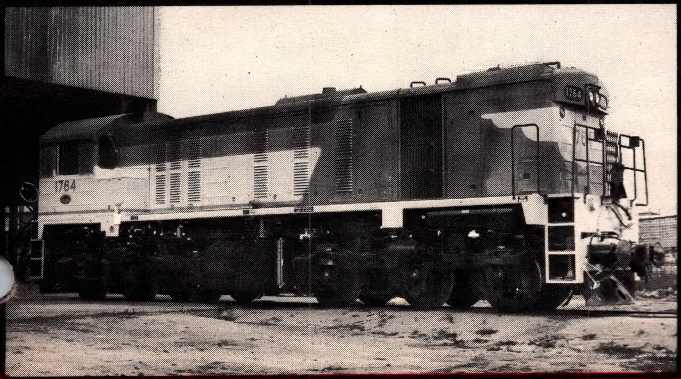
P.T.C. OF N.S.W. 422 Class 2200/2000 HP



B.H.P./WHYALLA Model G12B 1425/1310 HP



NEW ZEALAND RAILWAYS Model G12A 1425/1310 HP



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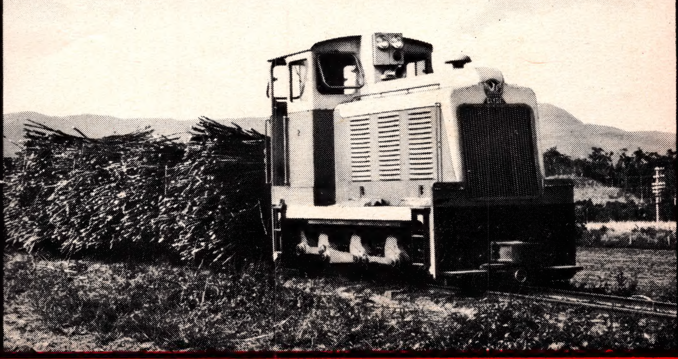
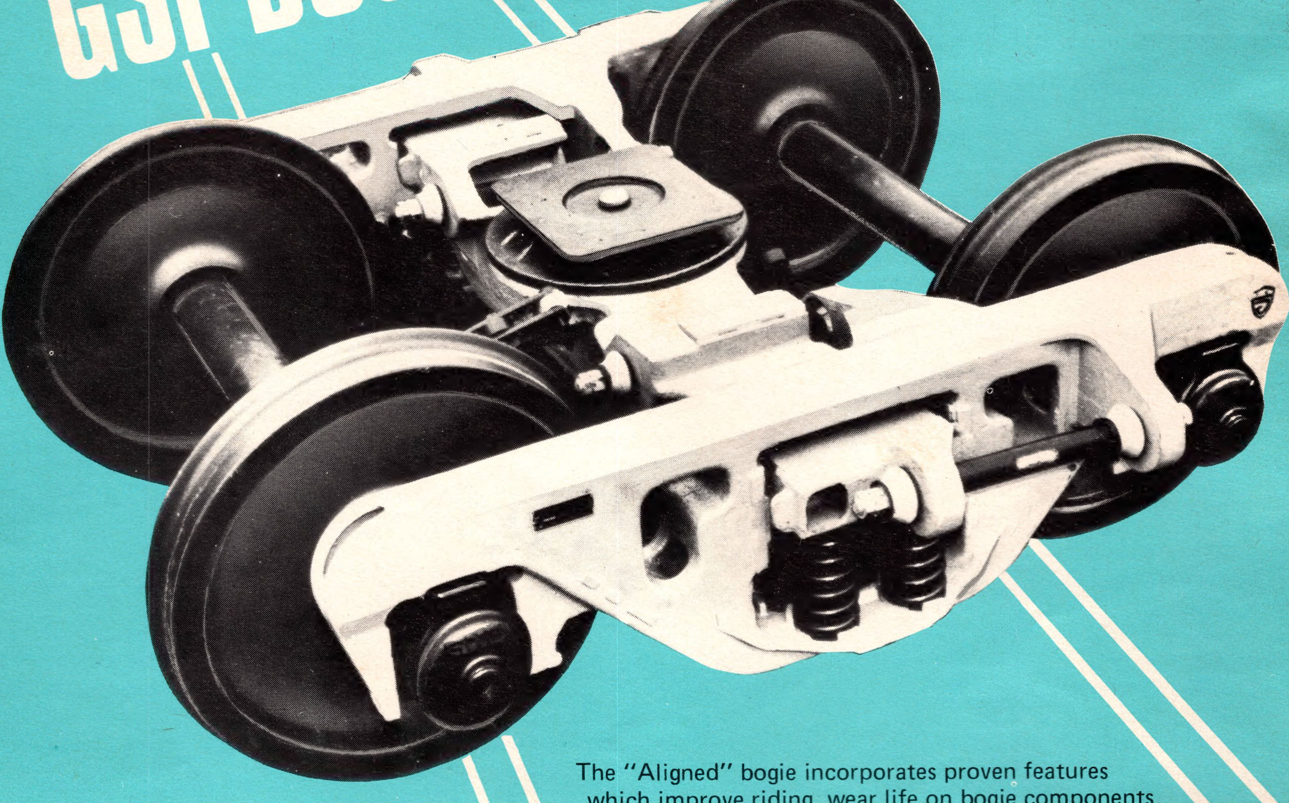


CANEFIELDS AND INDUSTRIAL Model DHI-71 220/170 HP

GSI BOGIES ON THE RAIL



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Railways of Australia Network

ROA

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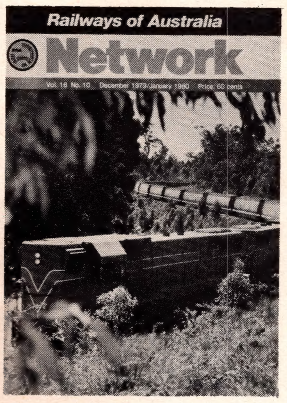

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- Public Transport Commission of New South Wales
- Queensland Railways
- Victorian Railways
- Western Australian Government Railways

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Mr Ian J. Reiher appointed Secretary for Victorian Railways - Mr J. W. Davies appointed Deputy Chief Commissioner, PTC - Mr R. A. Robertson appointed Manager Sales, Westrail Marketing Branch - Churchill Fellowship for Mr Vince Graham - "Cars a Luxury" - CP Rail wins International Golden Spike - Mr Tom Williams appointed Assistant General Manager, ANR - Mr Merv Nayda appointed Assistant General Manager (Engineering and Planning), ANR - Mr Des Smith appointed Chief Civil Engineer, ANR - Comsteel supplying Indian Railways with wheels and tyres - a super 8 mm version of "A Cinder in Your Eye" - Canterbury Provincial Railway data - Flexi-Fare introduced by VicRail - new road/rail/sea terminal at Acacia Ridge, Brisbane - Goodyear's tank car divider - NZR container traffic growth - mobile ballast crusher on Sydney-Melbourne upgrading

OUR COVER

One of Westrail's woodchip trains, seen winding its way through forest country in the South West en route to export facilities at Bunbury.

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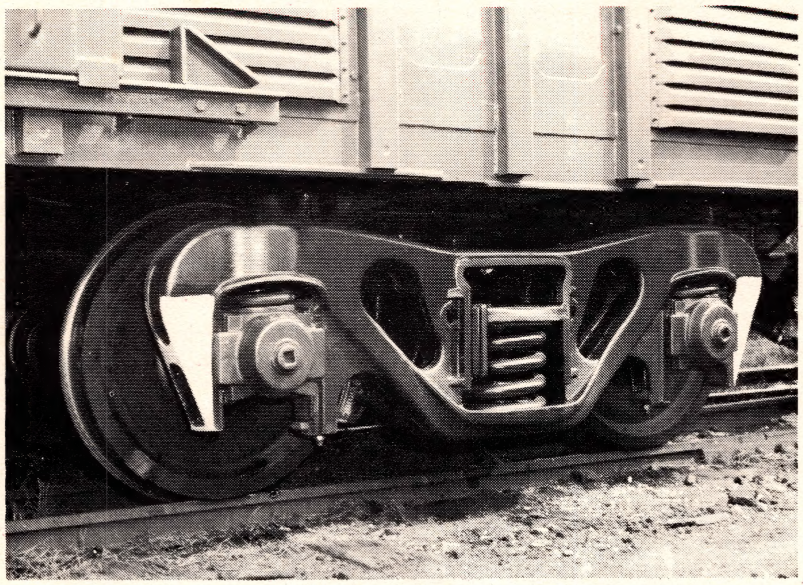

Fast freight bogie with Pioneer Springs and Wear Plates as supplied to the New South Wales Public Transport Commission.

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Railways of Australia
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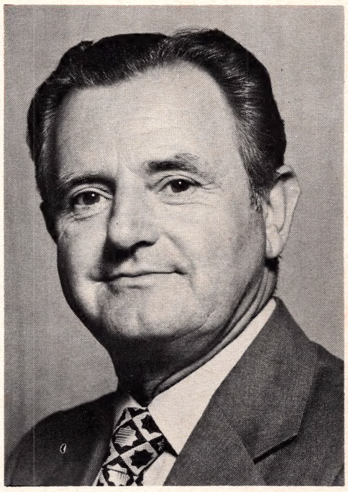
From the Executive Director's Desk

The Christmas Message



It is fitting at this time of the year to glance back in retrospect over the eventful year now drawing to its close, and at the same time to examine the signs and portents for the coming one.

The year just passing brought with it some economic difficulties on the national scene. It was a year in which the Railways' general wages and salary costs soared dangerously to overshadow all other operating costs.

This huge wages bill is for the 114,000 odd people required to maintain what is one of the best railway services in the world today.

However, in providing Australia's essential passenger and freight services, the Railways of Australia incurred deficits totalling over $700 million during the year just passed.

One way to offset these losses is to encourage more people to use rail for personal travel and for movement of freight. We can talk with pride of the long-range planning for the future of railways. Throughout every system and every branch of those systems, fresh scrutinies are being made of our procedures and ways of doing things. Even more modern operating methods are continually being introduced, all bearing on the expansion and improvement of our service to clients in the light of present-day needs. Throughout the Railways of Australia there is a heartening determination to overcome obstacles and march on to new and greater achievements.

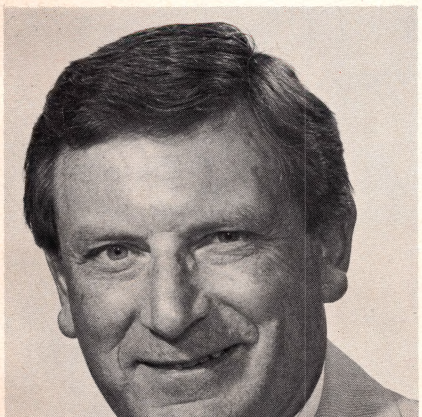
Pride in the job and in the Railways of Australia, as well as mere self-interest, dictates that each one of us should be dedicated to producing a superlative service to sell in the highly competitive transportation market. And pride in a task well and faithfully performed gives meaning and purpose to the life of an individual employee.

If we attract more business in 1980 through better service, it will be to the mutual benefit of every one of us. This, then, is the season to make service and goodwill to the public and fellow-workers even more the pattern of our daily lives. Let the simple happiness of Christmas be maintained by one and all, to sustain us and our service in the year that lies ahead.

Through this column since April of 1979 I have been privileged to make contact with you, contact that I cherish. This column is equally cherished, but I also take the opportunity of wishing all railwaymen and their families a very happy Christmas and prosperous 1980. Let productivity be our secret tool in the 80s.

NEVILLE J. GAZZARD
Executive Director

Mr W. I. McCullough appointed Chairman of ROA and ARRDO

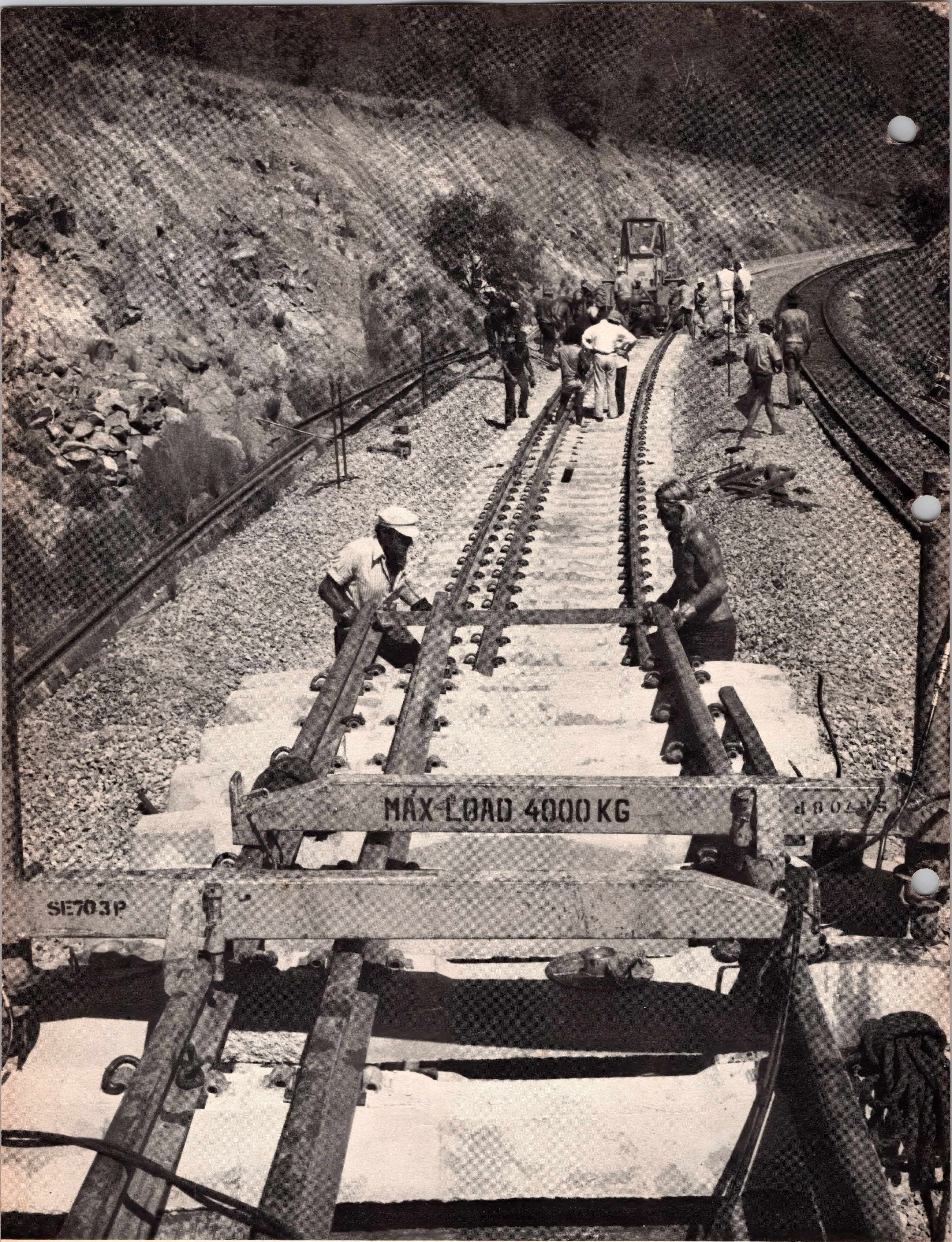


Westrail's Commissioner of Railways, Mr W. I. McCullough, has been appointed Chairman of both the Railways of Australia Committee (ROA) and the Australian Railway Research and Development Organisation (ARRDO) for the next twelve months.

As Chairman of ROA, Mr McCullough also becomes the representative of Railways of Australia on the Co-ordinating and General Transport Group of advisers to the Australian Transport Advisory Council. He also represents Western Australia on the Railway Group of ATAC.

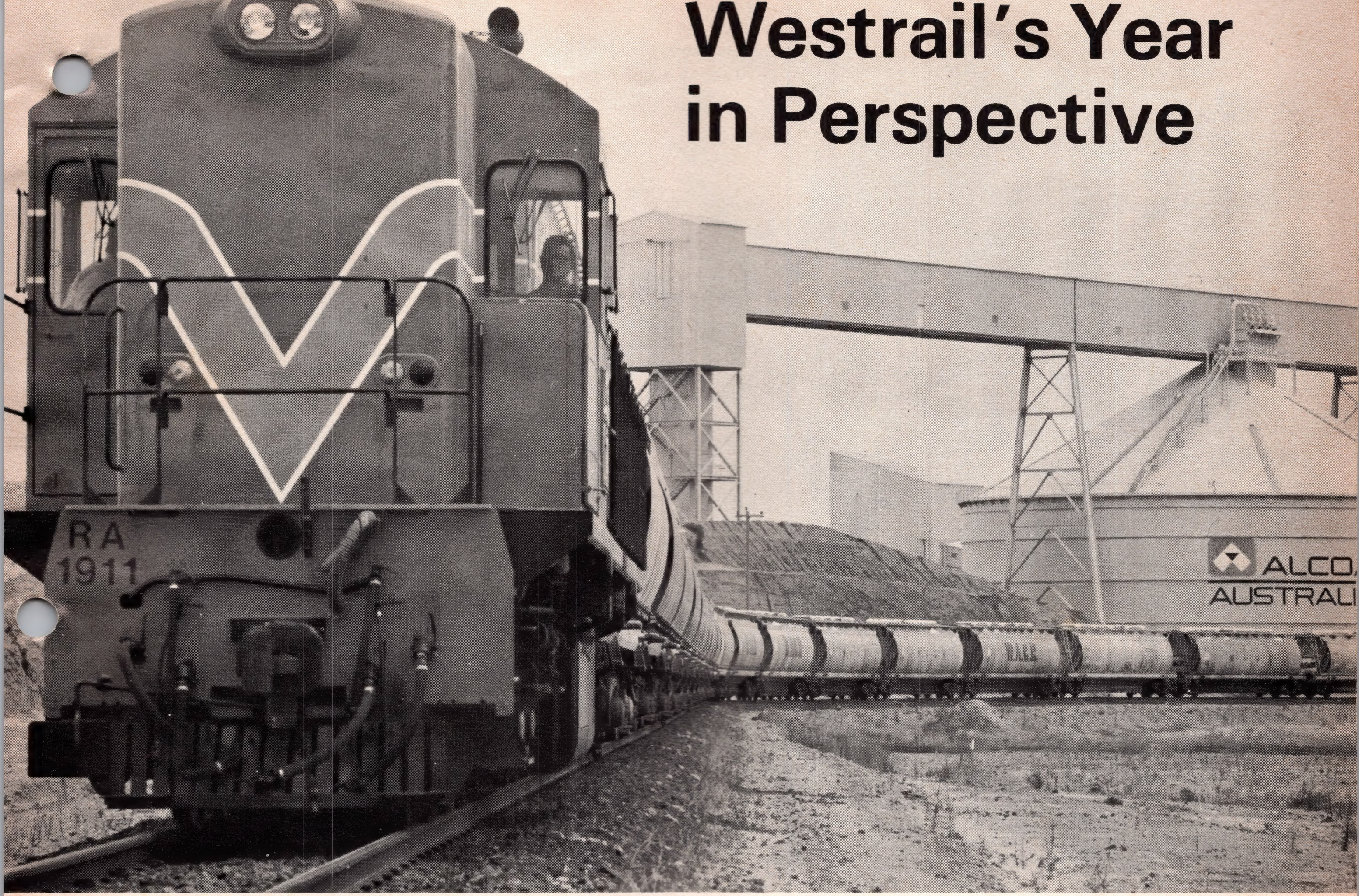
Mr McCullough, who succeeded Mr R. J. Pascoe as Commissioner of Railways on 1 November 1978, became Chief Civil Engineer in September 1966 and Assistant Commissioner in 1971. He has been involved in many major railway projects during the past few years, including the development of Financial Strategy and Corporate Planning.

He is a Fellow of the Institution of Engineers (Aust), a Fellow of the Chartered Institute of Transport and a personal member of the Transport Industries Advisory Council.



SRS equipment laying panels of concrete sleepers and 60kg/m rail in the Avon valley as part of the Kwinana/Koolyanobbing rehabilitation project.

Westrail's Year in Perspective



Leaving Bunbury after unloading alumina for export.

Despite varying demands for minerals and irregular arrivals of grain ships in the 1978/79 financial year, Westrail almost reached the record haulage it achieved three years ago and moved a total of 19.25 million tonnes, compared with 19.37 million tonnes in 1976. A major feature of the year's operation was the increased haulage of bauxite.

However, 1978/79 was a disappointing year in terms of financial results and the $24.14 million loss represented a regression of $8.07 on the previous year.

There are a number of reasons for the increased deficit; but one basic reason needs special emphasis. Westrail has not been able to adjust rail charges regularly to compensate for cost inflation, and there has been a progressive widening of the gap between income and expenditure.

Harvest

A record harvest for the last grain season enabled Westrail to haul 3.2 million tonnes of wheat, barley and oats, despite a cut-back in grain services caused by the irregular arrival of ships. During one particular week in January, Westrail handled 133,122 tonnes, its largest-ever weekly tonnage.

Following the record harvest there was a rise of 36,000 tonnes in the haulage of fertiliser to country centres.

Plans have also been set in motion to handle an anticipated 3.5 million tonnes of grain during the 1979/80 season and an additional 16 narrow-gauge hopper wagons were built at Westrail's Midland Workshops to augment the fleet for the coming harvest. Unfortunately, Western Australia has had another period of low rainfall which will undoubtedly adversely affect the crop yield in many grain-growing areas.

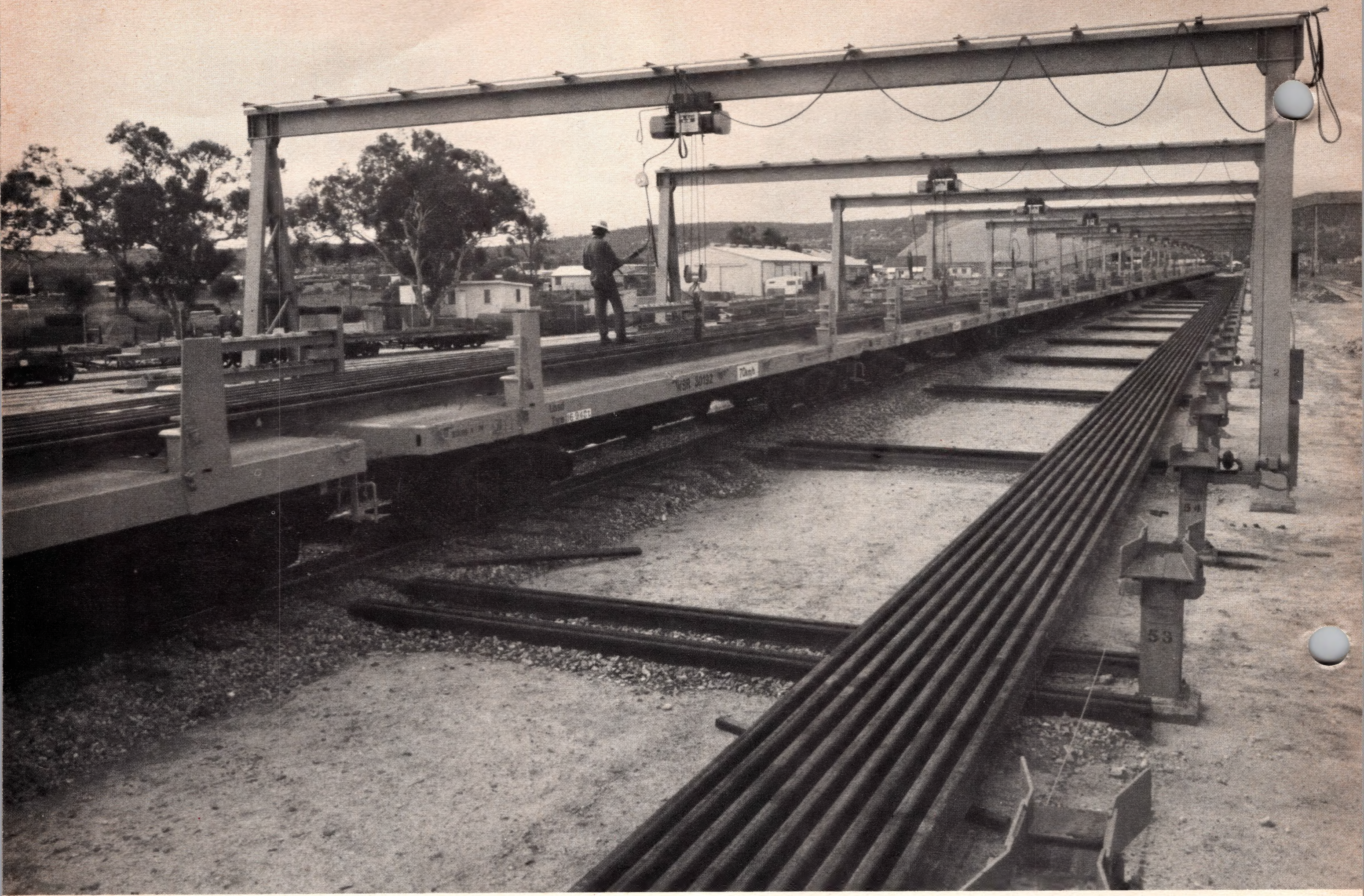
Freight Services

Once again bauxite was Westrail's most important mineral traffic. For 1978/9 the amount hauled from Alcoa's mines at Jarrahdale, in the Darling Ranges, to their refinery at Kwinana rose by one million tonnes to 5.4 million. It was a record movement for both Alcoa and Westrail and was the largest single contributing factor in maintaining rail tonnage figures during the year under review.

However, there was a downturn in the haulage of nickel products and mineral sands, whilst movement of interstate freight, wool, oil and cement maintained a level similar to previous years.

Despite the depressed conditions of the iron and steel industry there was improvement in demand for iron ore in the latter part of the financial year. This resulted in a slight rise in haulage between Koolyanobbing and Kwinana of 30,000 tonnes to 1.2 million. Also on the credit side were increases in coal by 150,000 tonnes to 1.3 million, woodchips by 82,000 tonnes to 600,000 tonnes, and alumina by 56,000 tonnes to 2.3 million tonnes.

Unfortunately, interstate operations were disrupted by industrial action in other States. One



Loading 60kg/m rail at the Midland flashbutt depot for re-railing between Northam and Grass Valley.

prolonged strike in South Australia during June and July effectively stopped all interstate passenger and freight trains for 25 days.

Since the start of interstate standard-gauge freight train operations ten years ago, east/west traffic through Kewdale Freight Terminal has more than trebled, topping one million tonnes for the third year in succession. A third of Westrail's total tonnage is now carried on the 500 kilometre section of the standard-gauge railway between Kwinana and Koolyanobbing, emphasising the line's importance to local as well as interstate operations.

Road Freight

Westrail operates a comprehensive network of road freight services in conjunction with its rail programme. Last financial year just over two million kilometres were run by Westrail trucks to areas not serviced by rail or as an ancillary to existing train services.

Weekly road services were also introduced as replacement for overnight freight trains on the Albany and Mullewa routes which were withdrawn on weekends.

Upgrading

The five-year rehabilitation of the standard-gauge line between Kwinana and Koolyanobbing was officially launched at Northam on May 18 by the Premier of Western Australia, Sir Charles Court.

Roberts Constructions Pacific Pty Ltd, awarded the contract for renewal of the main track, is using the sophisticated "P 811" machine imported from Italy. This machine simultaneously removes rails and sleepers, re-shapes the ballast and places new sleepers and rails in position in one continuous operation. It is the first machine of its type to operate in Australia.

On-track equipment, designed by SRS of Sweden, is being used for the replacement of 160 turnouts between Kwinana and Koolyanobbing. This is also the first time that equipment of this type has been used in Australia.

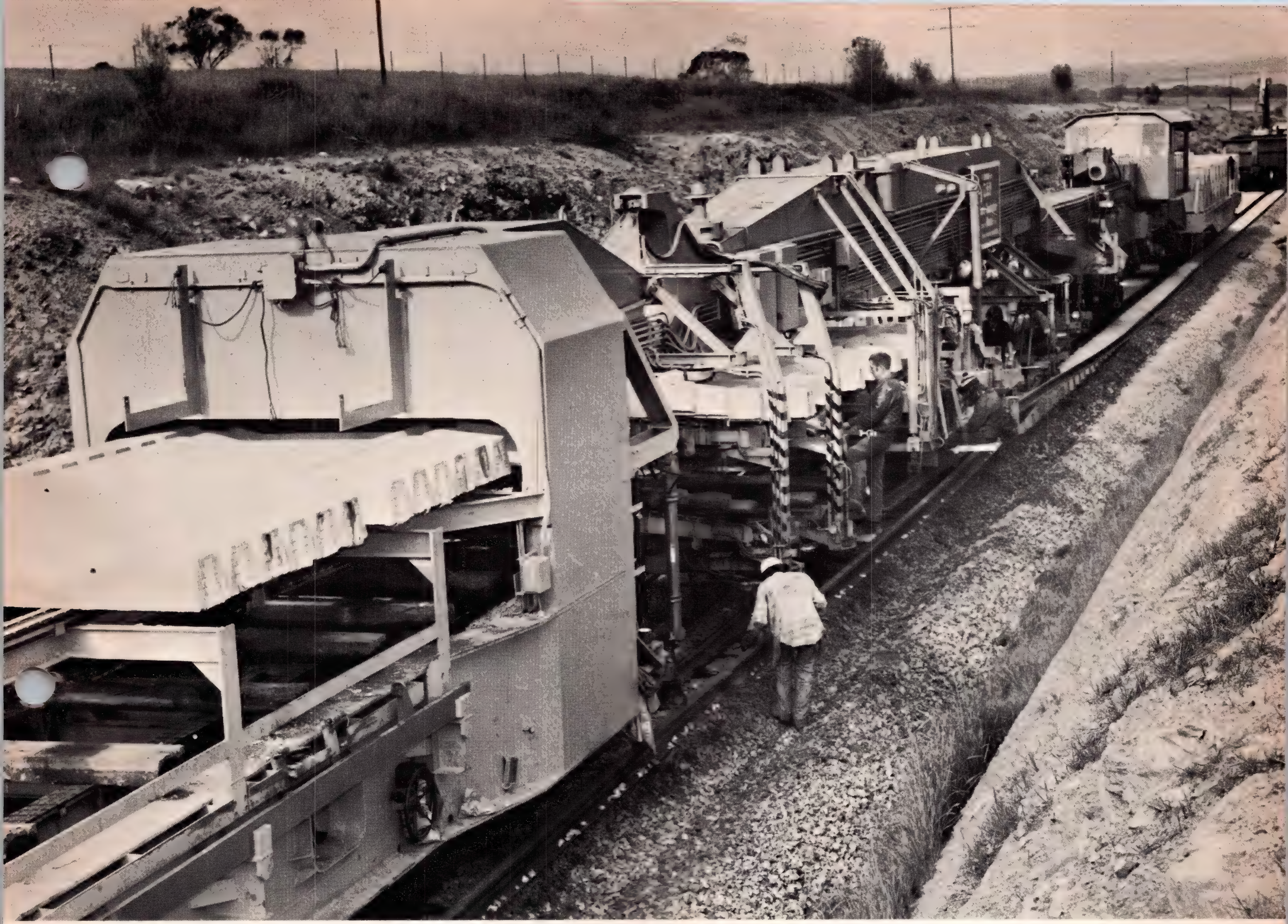
During the year the concrete sleeper factory at Meckering, operated by John Holland (Constructions) Pty Ltd, produced 160,000 sleepers and over 150,000 tonnes of ballast for the project.

A new flashbutt welding depot at Midland has been built to weld the 60kg/m rail into 274 metre-lengths for despatch to the re-sleepering and re-railing site between Northam and Grass Valley. The depot was officially opened by the State Minister for Transport, Mr E. C. Rushton, on November 23.

During Westrail's scheduled track maintenance programme in 1979, two mechanised contract teams renewed 180,000 timber sleepers and completed 560 kilometres of maintenance. A Westrail re-sleepering team replaced 98,000 sleepers over 300 kilometres of narrow-gauge track.

To improve train operations associated with the Agnew nickel project and other mining developments in the area, a two-year contract to upgrade the 260 kilometre standard-gauge line between Kalgoorlie and Leonora is well under way. The contract includes re-sleepering and replacement of gravel ballast with crushed rock. This line is also to be progressively replaced with recovered 47kg/m rail which will allow heavier axle loading.

Fieldwork has started on the



P811 track-renewal machine in operation between Northam and Grass Valley.

installation of a new 120-channel cable carrier communication system between Perth and Northam. It is due for completion late next year.

Work on the Picton/Coolup CTC project has also commenced. When completed, signalling on this 82 kilometre stretch of line will be electronically controlled from a new centre at Picton, using microprocessor-based equipment.

New Equipment
During the year the main thrust of construction work at Midland Workshops was associated with the Kwinana/Koolyanobbing Rehabilitation project. It involved design, modification and building of many special-purpose wagons, track components and equipment. Other specialised wagons built included alumina, grain and coal hoppers, tank and nickel concentrate wagons and ballast hoppers.

Tenders were also called for the design and construction of five new suburban railcars and five trailers to replace old rollingstock on the Armadale and Midland lines. Contracts are to be let before the end of 1979.

Passengers
Intrastate passenger service to Bunbury and Kalgoorlie showed an overall increase in patronage during the year under review. The rise on the Perth/Bunbury "Australind" service was due, in part, to the promotion of educational tours.

However, patronage on the interstate passenger trains, "Indian Pacific" and "Trans Australian", showed a slight decline of five percent in 1978/79 compared with the previous year.

The "Albany Progress" was withdrawn on December 1 because of declining passenger numbers and the deteriorating condition of carriages. It was no longer possible to provide a service of an acceptable standard without large expenditure on construction of new rollingstock. The train has been replaced by five additional return motor coach services each week, including an express coach with limited stops. There are now 15 weekly motor coach services to Albany.

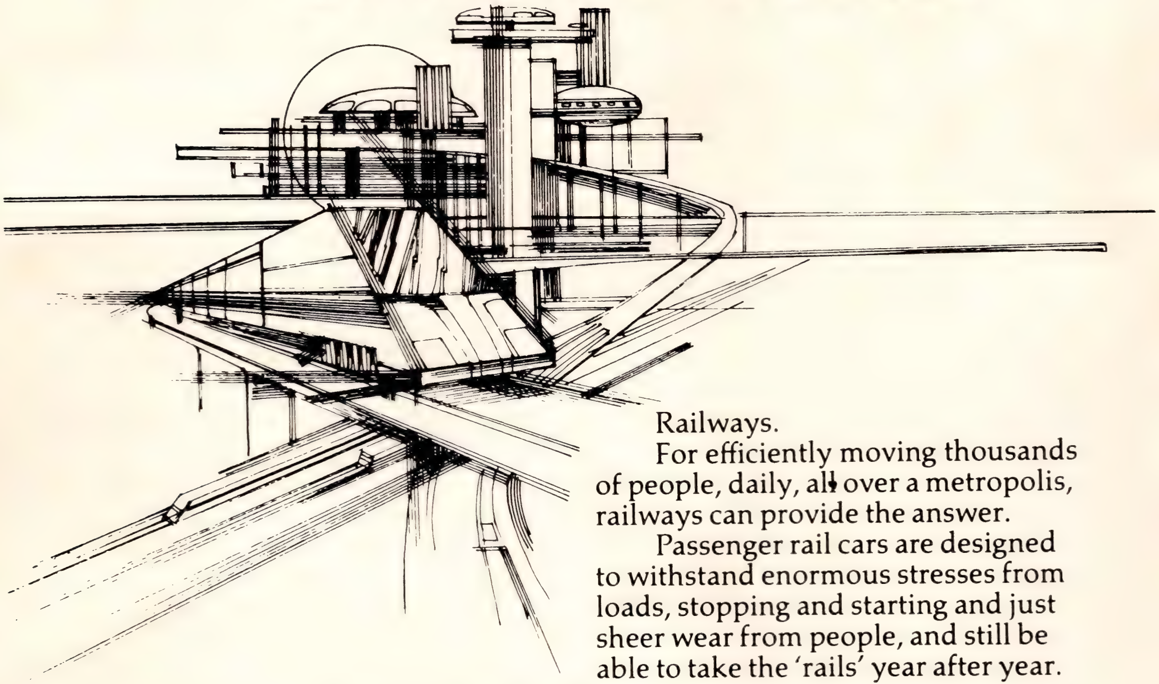
Patronage on Westrail's country motor coach services improved by 11,000 passengers during the year, with the principal increases recorded on the Albany, Bunbury and Geraldton routes. Motor coaches, in fact, ran a total of 2.8 million kilometres. To maintain the service the last of twelve new air-conditioned vehicles were introduced into the fleet, enabling 17 older models to be withdrawn.

Suburban Passenger Services
Work is proceeding on several new projects to attract more passengers to rail transport along the Armadale and Midland lines, following cessation of the Perth-Fremantle services on September 1.

A major project is a new bus/rail interchange station at Kelmscott. Here buses from four routes will feed into the new facility which will provide for direct transfer of passengers, as buses will drive onto the platform.

City Station, and the area adjacent to it, is being progressively upgraded as part of the planned urban renewal programme. The forecourt of City Station is being converted into a pedestrian plaza in conjunction with the Perth City Council.

THE SHAPE OF MASS TRANSIT



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Rail cars are just one of the uses; newly developed stainless coal hopper rail wagons are also proving the point. Apart from railways, there are buses, moving walkways, escalators and elevators, all extensive users of Comsteel Stainless. In fact Stainless Steel will suit many applications where other materials struggle to survive.

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CSS/38/7709

Record Allocation for PTC Improvements

One of the PTC's "80 class" diesel electric locomotives.

The NSW Government has made available a record amount of $210 million during 1979/1980 to enable the Public Transport Commission to continue its modernisation programme.

This allocation, which is $3 million more than the 1978/1979 figure, is part of the 5-year $1,000 million public transport improvement programme, and will bring to more than $750 million the NSW Government's total allocation since coming to office.

These are the main features of the PTC's 1979/1980 improvement programme:

More double-decked carriages

A further 148 new double-decked suburban carriages will be brought into service. This brings the total number of new carriages introduced since the Government took office in 1976 to 347.

More locomotives

This year will see a substantial increase in the motive power fleet — so vital to enable the PTC to move bigger quantities of freight.

The Commission will take delivery of 16 new '80' class diesel-electric locomotives and nine '85' class electric units. The electric locomotives are the most powerful units ever built in Australia.

Additional freight wagons

The ongoing replacements to update the PTC freight wagon fleet will continue. About 220 new freight wagons are included in the modernisation programme to replace rolling stock more than 55 years old.

This intake will bring the number of new freight wagons ordered during the Government's term of office to 1,750.

New Manly ferry

A contract has been let for the construction of an $8.2 million high-performance ferry for Manly-Circular Quay services. This follows closely on the introduction recently of two new 'Lady' class vessels — *Lady Street* and *Lady Herron.*

The new ferry will carry more than 1,100 passengers at speeds of up to 17½ knots, reducing normal travelling time between Manly and Circular Quay by 11 minutes, or one third.

More car parking at suburban stations.

The provision of more car parking spaces at railway stations as part of the programme to encourage the use of public transport will be continued. Car parking will be provided at suburban locations as well as interurban areas, such as at Woy Woy where 70 additional spaces were made available in late September.

Cleaner trains

New carriage washing plants under construction at Hornsby, Mortdale, Punchbowl and Flemington will result in a cleaner appearance for the Commission's extensive carriage fleet. It is expected that the first of the new cleaning plants — at Hornsby — will be in service early in 1980.

More electrified line

The 13 km section of track between Loftus and Waterfall, which is being electrified at a cost of about $6.5 million, is scheduled for completion by next April.

Work is also well advanced on the $129 million Gosford/Newcastle electrification project which will enable electric trains to run between Sydney and Newcastle in 1982.

Improved coal handling facilities

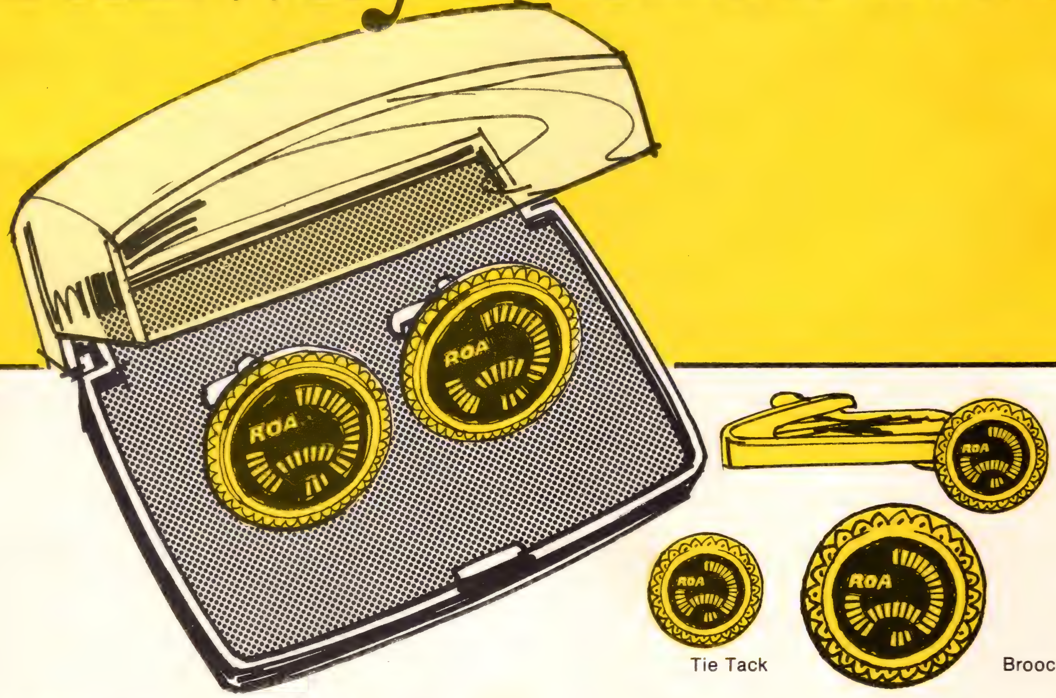
New rail facilities will play an important part in the success of the upgraded Balmain coal loader, which will have a capacity of 4.5 million tonnes per annum, and the new Port Kembla loader with its capacity of 14 million tonnes annually.

Rail facilities at Port Kembla will cost about $14 million, and work is well advanced on both projects.

More Mercedes buses

By the end of October, 500 new Mercedes-Benz buses will be in service out of the total of 750 being delivered under a leasing arrangement. The balance will be brought into service at the rate of about five each week.

ideal gifts for the railway enthusiast



All "Network" readers will be familiar with the Railways of Australia logotype which appears on the front of this magazine.

Railways of Australia have now produced four items of jewellery finished in black and gold bearing this logotype – cuff links, tie tacks, tie bars and brooches. All are first class products and have been hard gold plated to provide not only obvious quality in appearance, but extremely long life.

These items are attractively priced and are available through the mail by writing to Railways of Australia. Prices are:- Cuff Links $5.00. Tie Tacks $2.50. Tie Bars $2.50. Brooches $2.50.
Plastic presentation boxes are also available for the cuff links at the modest cost of $1.00.

To place your order, simply fill in the coupon below. Please allow 2-3 weeks for delivery.

Railways of Australia

Merchandise Manager Railways of Australia, 325 Collins Street, MELBOURNE, VIC. 3000

Please forward:-
________ sets of R.O.A. cuff links @ $5.00
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________ R.O.A. brooches @ $2.50
(Packing & Postage rates: Cuff Links 80c Tie bars/tacks/brooches 60c) Postage @
My cheque/money order for $______ is enclosed. TOTAL $____

NAME ________________________________

ADDRESS ________________________________

________________________ POSTCODE ________

'Intercity XPT' Trains

Planning is well under way for the 30 'Intercity XPT' carriages which will be used on country lines. These trains will introduce a new concept in travel luxury for intrastate passengers. A more detailed write-up appeared in *Network*, March 1979 issue.

Air-conditioned train for suburban passengers

Just as long-distance passengers will be provided with the ultimate in travel comfort with 'Intercity XPT' trains so, too, will Sydney suburban passengers be able to enjoy air-conditioning.

A start will be made on the construction of eight prototype double-decked suburban carriages which will be fitted with air-conditioning, to be appraised under actual travelling conditions.

Unlike other air-conditioned trains, suburban units are required to stop frequently and the regular opening of doors obviously has an adverse effect on air-conditioning plant efficiency.

New signalling equipment

Modernisation of signalling equipment will mean fewer delays to passenger and freight trains.

The PTC's multi-million dollar computerised rail-signalling system covering the Inner Sydney Area is now nearing completion. The commissioning of various stages started on 23 September. This massive project was outlined in a feature article in *Network*, February 1978 issue.

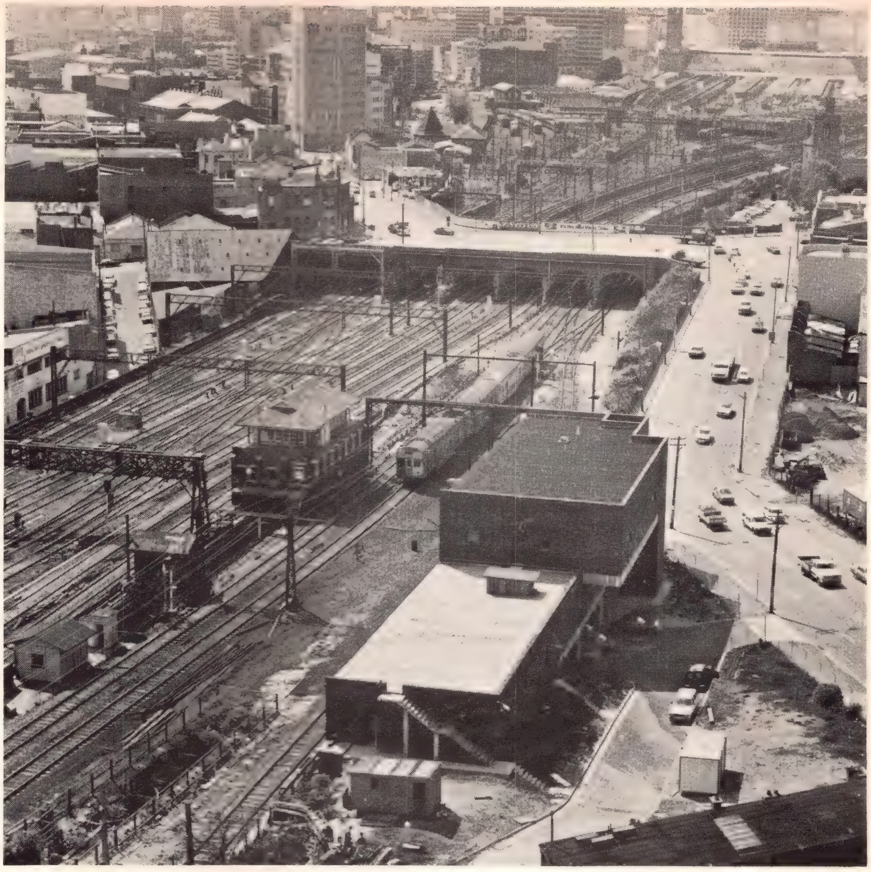
When the Sydney Area project is completed, work will be concentrated on a similar installation covering the Strathfield Area.

A feature of the new system is the modern Signalling Control Centre, near Redfern. This houses two mini-computers as part of an electronic 'train describer' system, which will automatically keep track of every train in operation in the area.

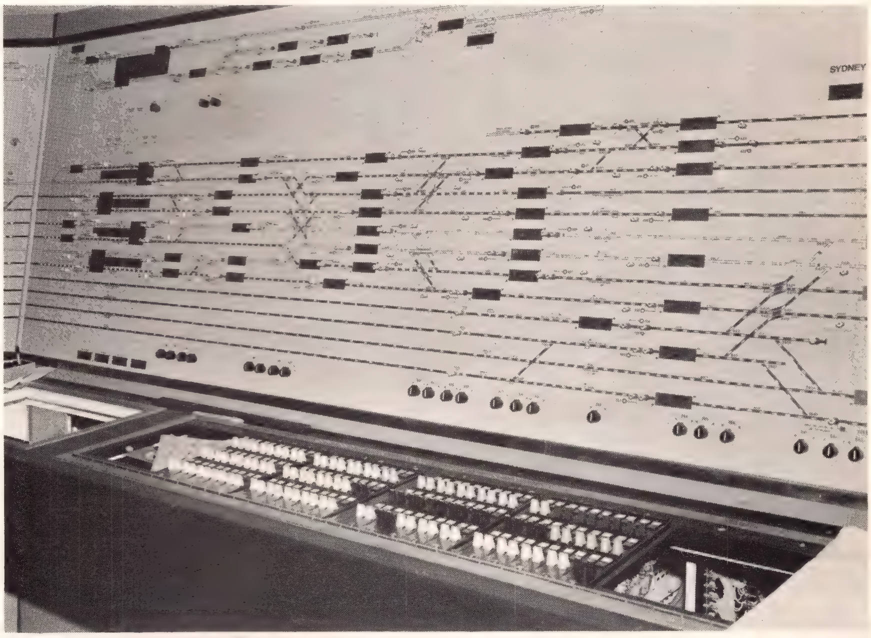
The new complex will enable signalmen to operate more efficiently when trains are out of order, thus preventing 'snowballing' delays. It will also 'locate' trains not running to schedule and enable signalmen to take the necessary remedial action.

On the completion of the fourth stage in 1980, the complex will be linked directly to City Station platform indicators, which will automatically show the correct destination of the next train.

A teleprinter terminal to the Traffic Trouble Office, which is the 'nerve centre' of Sydney's train operations, will give 'on line' information of train running.



The brick building in the foreground is the "nerve control" of the PTC's new computerised signalling complex.



Close-up of section of the new push-button console.

More track capacity

Work will continue this financial year on the quadruplication of suburban lines between Strathfield and Epping, and between Seven Hills and St Marys.

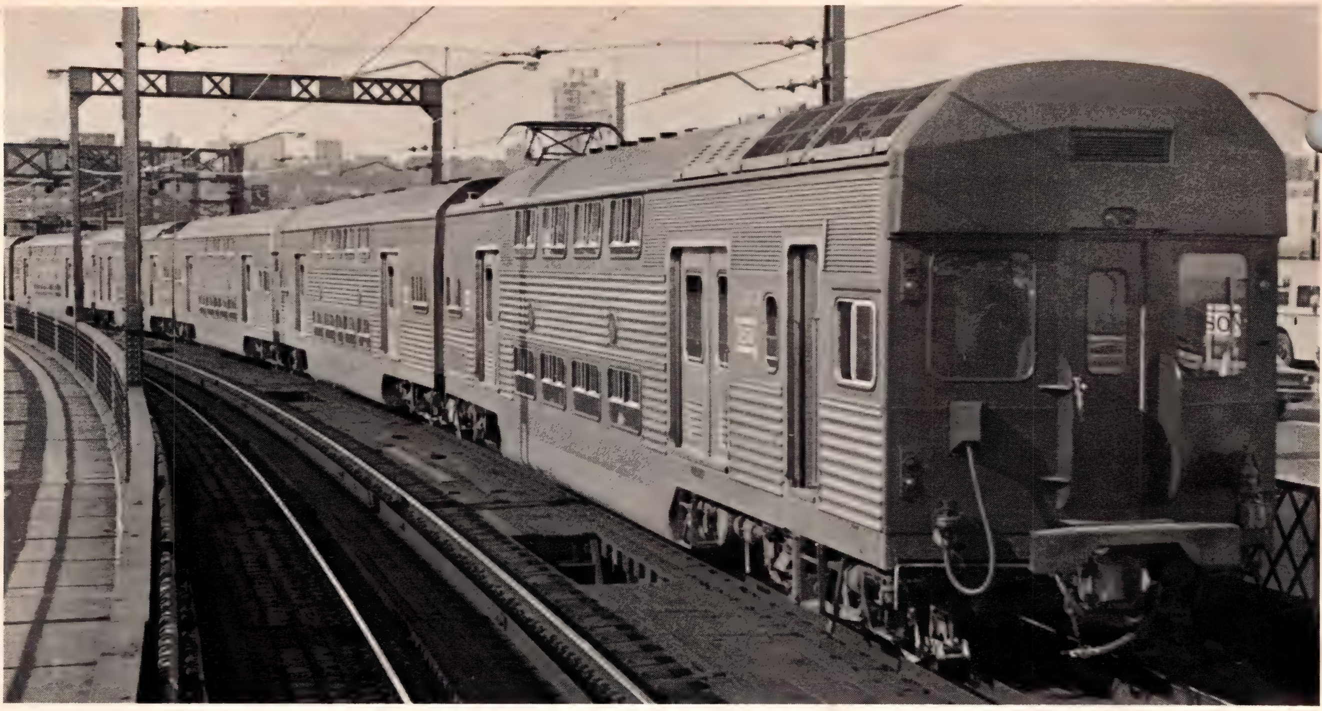
Track upgrading continues

In addition to all the foregoing projects, $43 million will be spent this year on upgrading 570 kilometres of track.

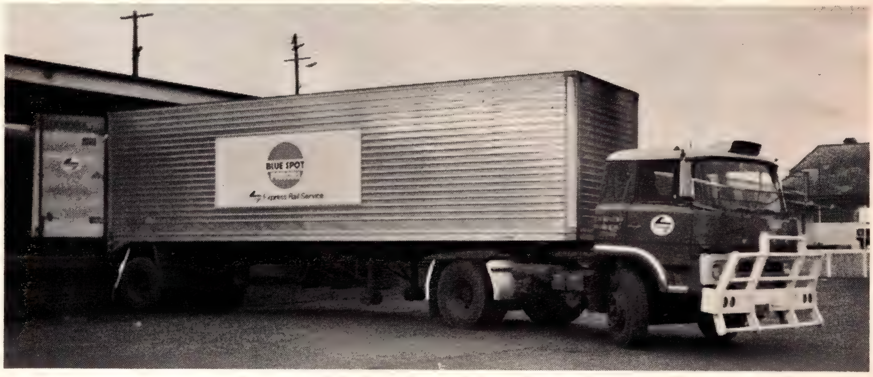
This will bring the total length of track upgraded since the present programme began 2½ years ago to 1 000 kilometres.

Level crossing safety improvements

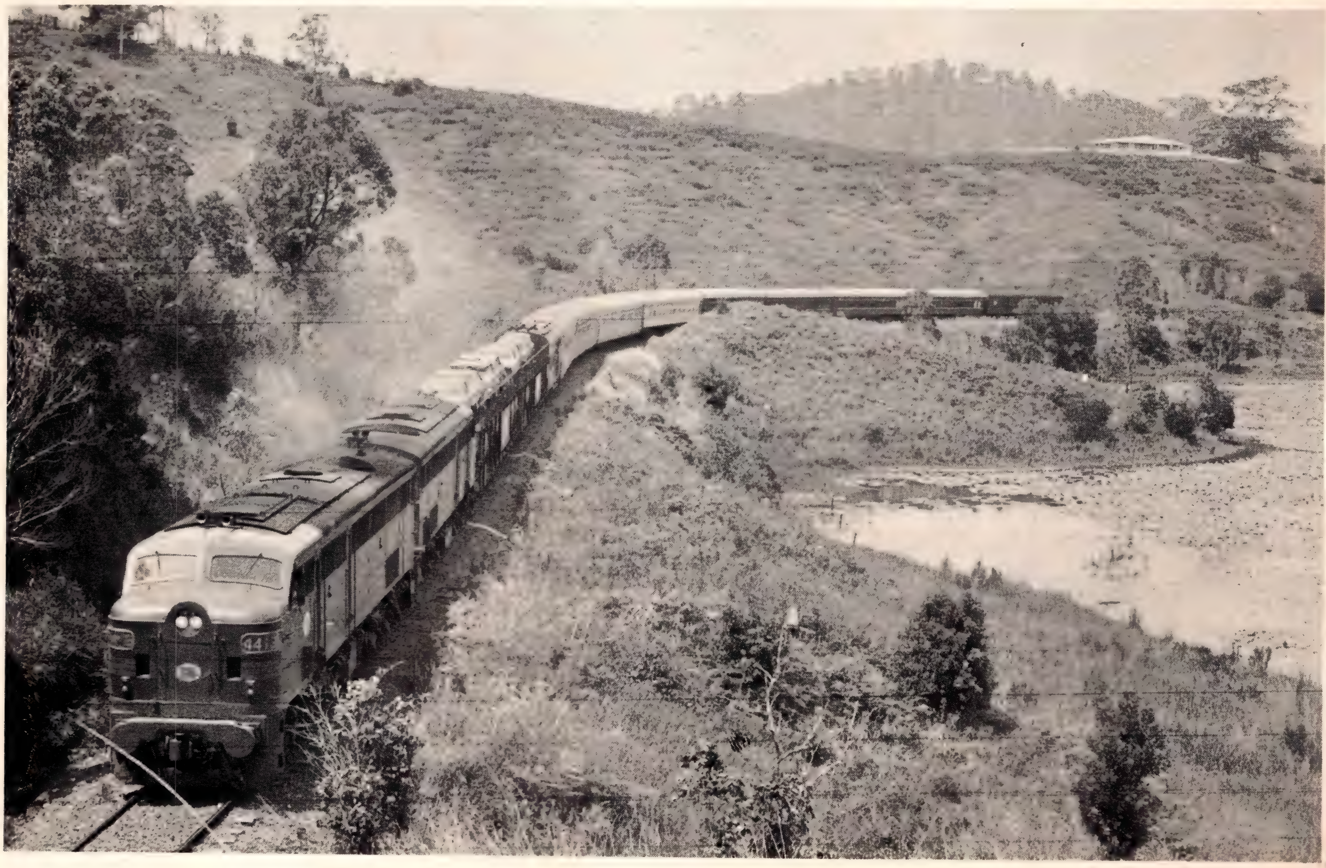
During 1979/1980 the Commission will contribute to the erection of over-bridges to eliminate level crossings at Hawkesbury River, Doonside, Rooty Hill and Camellia, and to the improvement of level crossings at a number of locations throughout the State.■



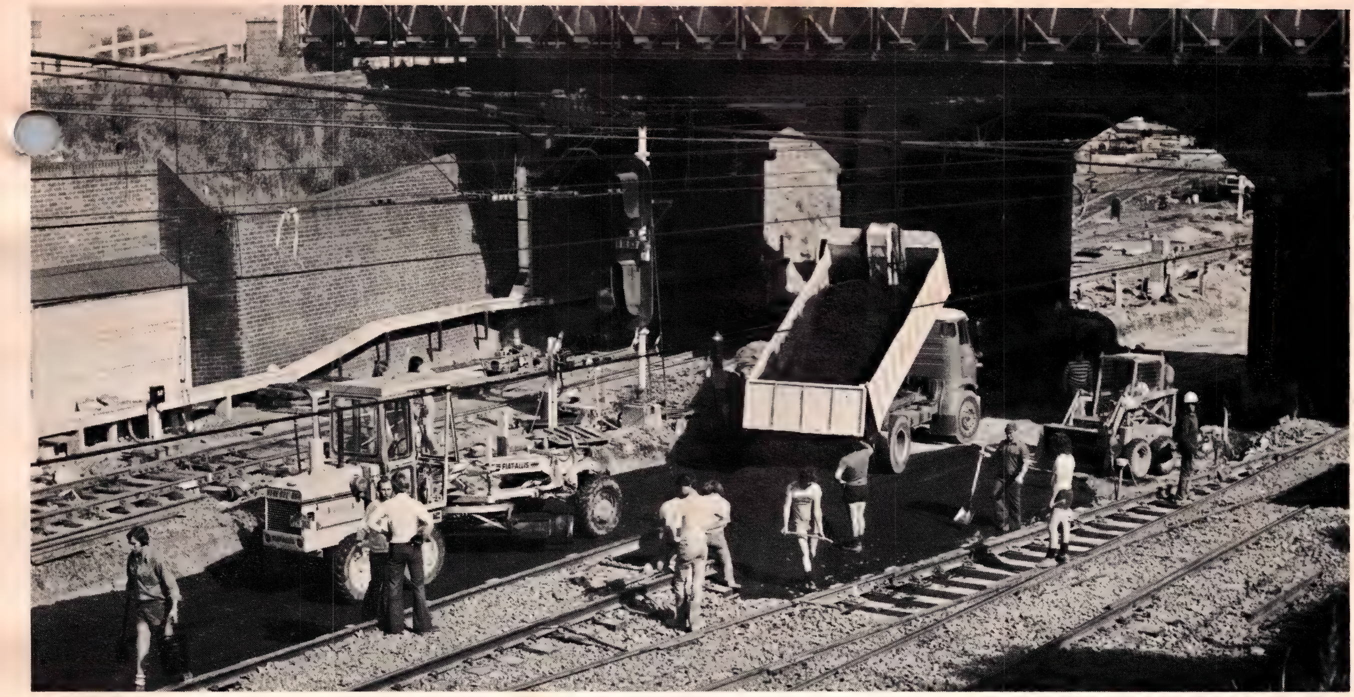
During 1979/80, the PTC will place 148 new double-deck carriages in service on its suburban lines.



Promotion of PTC's Blue Spot Parcels Service has taken on a new dimension with the distinctive signs attached to semi-trailers engaged in the express services. Similar signs identify the location of Blue Spot Parcels Offices.



"Gold Coast Motorail Express" on one of its scenic journeys linking Sydney with Murwillumbah — railhead for Queensland's famous Gold Coast.



Laying hotmix asphalt to ensure under-ballast drainage at Auburn.

PTC Tests Asphalt for Under-Ballast Drainage

A new railway track restoration technique which involves the placement of a layer of hotmix asphalt to provide drainage under the ballast, is being tested by the Public Transport Commission in Sydney as a solution to the problem of line instability under certain conditions.

The increasing frequency of heavier loading of track, particularly on main lines, can result in a loss of supportive ability in sections where natural drainage is slow. In wet weather, mud forms in the subgrade and is pumped up through the ballast by the passage of trains, to leave the rail unsupported until the track is re-laid.

The Auburn railway junction, an important component of the Sydney railway system, is constructed on a clay subgrade with a C.B.R. of the order of 5%. Inadequate drainage has resulted in significant track movement, and rail traffic speed through the junction is therefore restricted.

The P.T.C. has commenced a renewal programme, and to ensure that a satisfactory base is provided for the tracks, asphalt is being applied to the subgrade as a capping.

The asphalt is contoured and in conjunction with a series of pits and drainage conduits will provide a comprehensive drainage system for the ballast and ensure that the moisture content of the subgrade is stabilised.

Because of the importance of the junction as part of the metropolitan railway system the work is only carried out at weekends to ensure minimum interference to rail traffic.

A team under the direction of the main contractors, Roberts Construction (Pacific) Pty. Ltd., cuts and lifts the rails and removes sleepers and existing ballast. The sub-grade is then excavated as necessary and restored in a cross-fall design to drains on either side of the track.

As soon as this is done, a laying crew takes over and lays and compacts an impervious layer of "deep strength" asphalt 100 mm thick on the 1-in-50 cross-fall surface of the sub-grade. The asphalt is supplied by Bitupave Ltd from one of its Sydney plants, located at Greystanes. Ballast, sleepers and rails are then replaced by the contractors.

The renewal is being done in sections, ranging in track area from 300 to 600 square metres. Each involves the laying and compacting of 80 to 200 tonnes of asphalt at night. The whole project is expected to take 1,800 to 2,000 tonnes.■

New railway lines - new industries

History is repeating itself — in the same way as hamlets and towns and then industry sprang up around the new railway lines as they spread out progressively from Sydney into the hinterland in the late 1800s.

The 14 kilometre Whittingham/Mount Thorley coal-line, which was opened in the second half of 1978, has been the catalyst, not only for the development of coal exports, but also for other industries which are being established near the Mount Thorley coal-loader.

Singleton Shire Council, anticipating expansion of local coal-mining, has developed an industrial estate around the access road to the loader, with lots ranging in size from 0.39 to 2.1 hectares.

Many companies have bought or are buying sites, and in the main they are organisations connected with the coal or mines-orientated industry. When most of the first 24 lots were taken up by various industries, a second sub-division of 26 lots of similar size was released.

Thus new railway lines have brought new industries, in the same way as New South Wales developed around the life-lines of steel which stretched out from the colony's capital, starting with the 22 kilometre Sydney/Parramatta line opened on 26 September 1855.

* * *

NOW... Sur
plain trac
PLASSER 0

In mid 1977, the first bogie mounted Plasser 07-Series Switch Tamping Machine in Australia went into service with the Public Transport Commission of N.S.W.

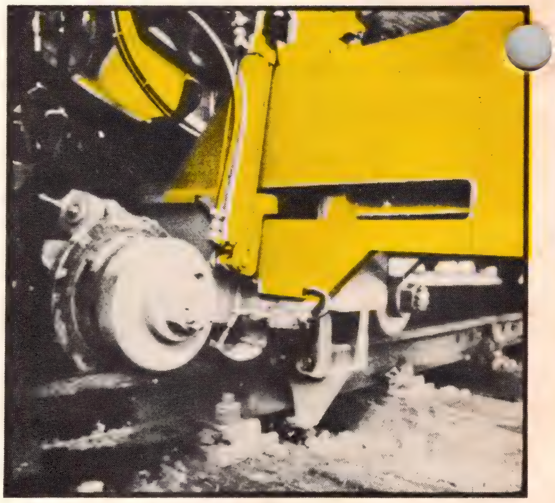
The performance of this machine speaks for itself. The Commission has since purchased a further 5 identical machines.

Additionally, 3 machines have been purchased by Western Australian iron ore mining companies and railroad contractors.

Sales of the Plasser 07-275 in Australia now total 9 machines, with some 250 in use throughout the world.

EXCLUSIVE PLASSER FEATURES:

- Automatic "Proportional" Levelling System.
- Automatic "Single-Chord" Electronic Alignment System.
- Laterally adjustable tamping units with individually pivoting tines.
- "Design" or automatic "Smoothing" levelling and alignment capability.
- High level of operator comfort - ergonomically designed, fully enclosed, insulated operators' cabins with intercommunication system.
- 80 km/hr travelling speed - self propelled or in train formation.
- " Fail safe" pneumatic shoe brakes on all wheels - train formation compatible.
- Made in Australia - with after sales service and spare parts back-up second to none.

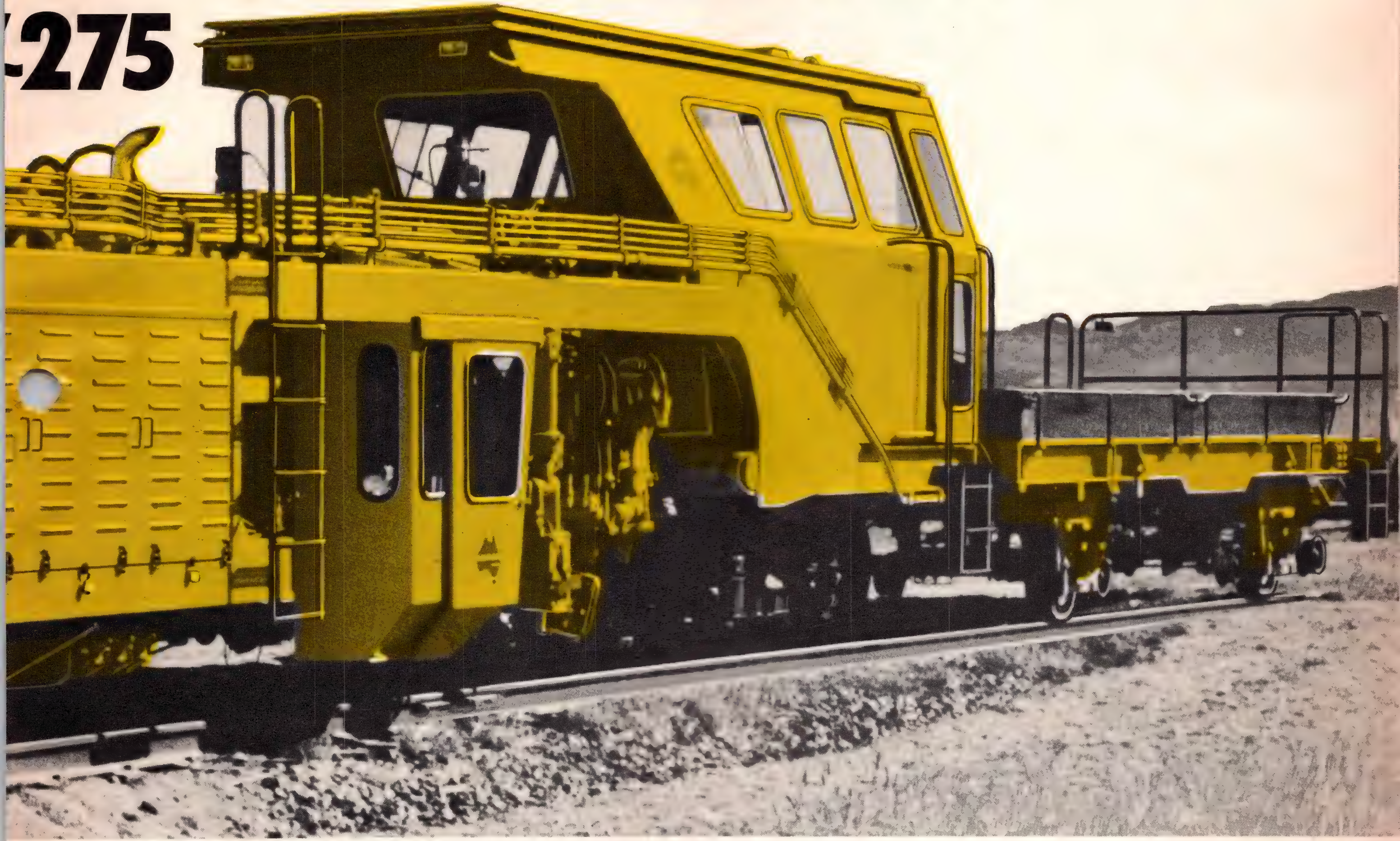


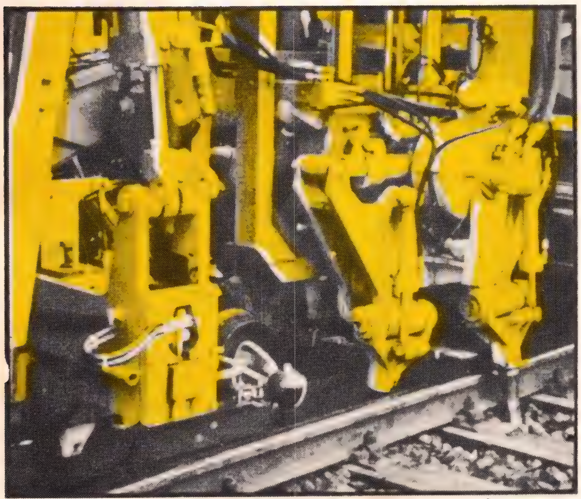
This unique lifting hook grips either the rail head or the rail base.

PLASSE

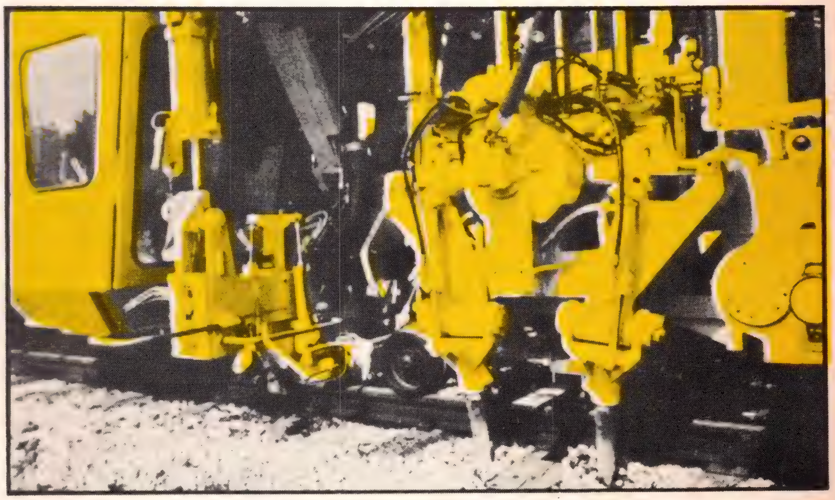
ace switches and crossings and fast with one machine.

275





Each tamping tool can be pivotted 15° in and 85° out by individual hydraulic controls. Tamping banks move laterally on guide columns.



Reaches every vital spot on the most complex switch or crossing. Finger-tip control of all movements - lifting, levelling, lining and tamping - with all actions in direct view of the operator.

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Have you tougher tests than these for locomotives to pass?

1. On the steep grades of the Tauernbahn in the Austrian Alps in 1970 an ASEA RC2 Locomotive proved it could haul much heavier trains than any other design tested.

2. Norway, on the mountainous line between Oslo and Bergen, winter 1971, ASEA RC2 locomotives were tested by CP Rail and again in 1976 with the RC4. Same results as in Austria.

3. U.S.A., the fall of 1976. A modified ASEA RC 4 running on Amtrack's Northeast Corridor between New York and Washington proved again it could stand up to the rigors of daily high speed passenger service.

Australia's first Thyristor Controlled Multiple Unit Trains, built by Walkers-ASEA in service for Queensland Rail, November 1979. Another first in Thyristor Technology.

RESULTS: Each of these tests resulted in ASEA obtaining the first orders from Austria, Norway and the United States for thyristor locomotives.

SUMMARY: The high power to weight ratio, low track forces and good running characteristics of ASEA thyristor locomotives can help you haul more and tighten up your schedules. Whether your need is heavy freight haulage or high speed passenger service, it will pay you to contact ASEA.

Whether it be Locomotives or Multiple Unit Trains ASEA can deliver a complete power supply system to your specifications — generating, distributing, converting and controlling your power to catenary or third rail.

Our experience is unmatched and is backed by the successful operation of ASEA equipment by satisfied customers throughout the world.

And we are ready for any more tests you may wish our locos to perform.

ASEA Pty. Limited

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ASEA

FT. 7901

Update for VicRail's Hurstbridge Line

This new brick station building at Darebin replaced an old wooden structure.

The Hurstbridge line, which serves one of Melbourne's rapidly developing areas, is taking on a new appearance. New station buildings and track, and an improved timetable, all add up to a better service for rail patrons.

Possibly on no other rail journey in Melbourne can one take in such a variety of scenes.

Leaving Princes Bridge station, which is across the road from the more famous Flinders Street complex, the first stop is at Jolimont where crowds alight for sporting events at the Melbourne Cricket Ground (the M.C.G.).

After travelling through two tunnels, between Jolimont and West Richmond, the scenery changes to one of factories, terraced houses, factories, corner hotels, warehouses and more factories.

At Clifton Hill the line to Epping branches to the left while the Hurstbridge line diverts to the right. After crossing Merri Creek, the train passes solid working-class suburbs that have known more of hard times than good times — Westgarth, Fairfield, Dennis and Alphington.

Then, beyond the Darebin Creek, the line traverses the blue ribbon districts of Ivanhoe, Eaglemont and Heidelberg and, after emerging from another tunnel, passes through the middle-class suburbs of Rosanna, Macleod, Watsonia and Greensborough, which have developed in the last twenty years.

Beyond "the borough" and Montmorency, is Eltham, home of artists and blue-jeaned trendies.

After Eltham the view from the carriage window along the banks of the Diamond Creek is truly rural. Several miles of farms and country side between the stations of Diamond Creek, Wattle Glen and the Hurstbridge terminus make a pleasant change after some 25 kilometres of suburbia.

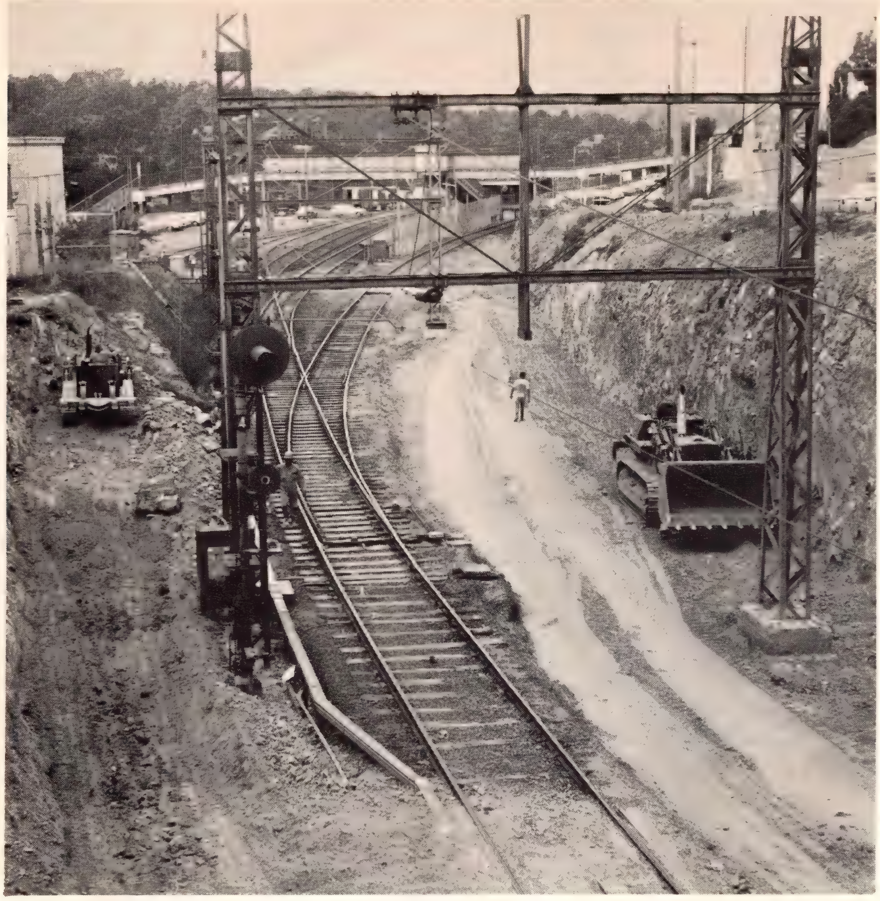
Until after the second world war, it was only a single track beyond Clifton Hill. Then, with the postwar boom, the line was duplicated, in various stages, to Macleod.

Even so, the line still had a country feeling about it. A passenger travelling from Hurstbridge could have the irritating experience of being shunted to sidings at Eltham, Greensborough and Macleod to allow trains coming from Melbourne to pass on the single line.

But those memories are long gone. The duplication reached Macleod in the late fifties, and over the recent years a major works programme costing millions of dollars has been undertaken between Macleod and Greensborough.

Over five kilometres of track between the two stations have been duplicated. In conjunction with

A Hurstbridge-bound Tait train approaches Macleod; in the newly-constructed sidings, three Harris trains await the evening rush.



Excavating at Greensborough for the second track.

this, level crossings at Watsonia Road, Watsonia and Grimshaw Street, between Watsonia and Greensborough, have been abolished. Road over rail bridges were constructed at both locations.

At Church Street and Main Street, both in Greensborough, where road over rail bridges were already in existence, new bridges were constructed to span the extra track.

At Watsonia, an island station was constructed deep in a cutting. However, local land owners were not asked to help with construction costs as they had been for the original wooden building.

Three new stabling sidings were built at Macleod, and this has removed the need to stable trains at Heidelberg.

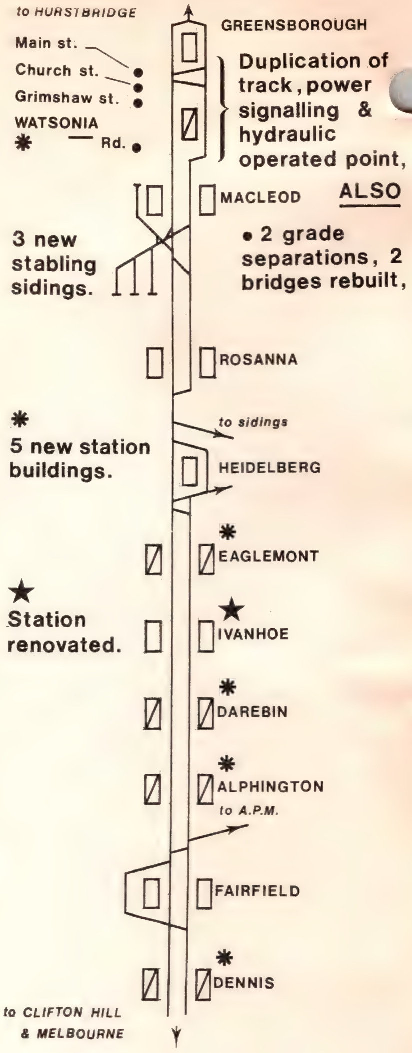
Closer to Melbourne, new station buildings have been built at Darebin and Dennis. Like Watsonia, they have replaced old wooden structures. Work is being carried out at Alphington at present.

What is the end result for passengers? With the completion of the track duplication a new timetable was introduced in September.

The expanding suburbs of Watsonia and Greensborough have had their morning and evening peak services doubled. This has been achieved by extending trains that previously, due to track limitations, went only as far as Heidelberg or Macleod.

These residents now have ten morning trains and 13 evening peak trains which, while small in number compared with other lines in the metropolitan area, will lighten the load on trains going to Eltham and Hurstbridge.

British Rail style name boards will become a common sight on VicRail suburban stations.



It has also been possible to provide an extra morning peak train from Eltham.

The long-distance passenger from Eltham and beyond has had his morning service speeded up. The new timetable provides for seven trains between 7.30 a.m. and 9.00 a.m. to run express from Clifton Hill to Princes Bridge.

* * *

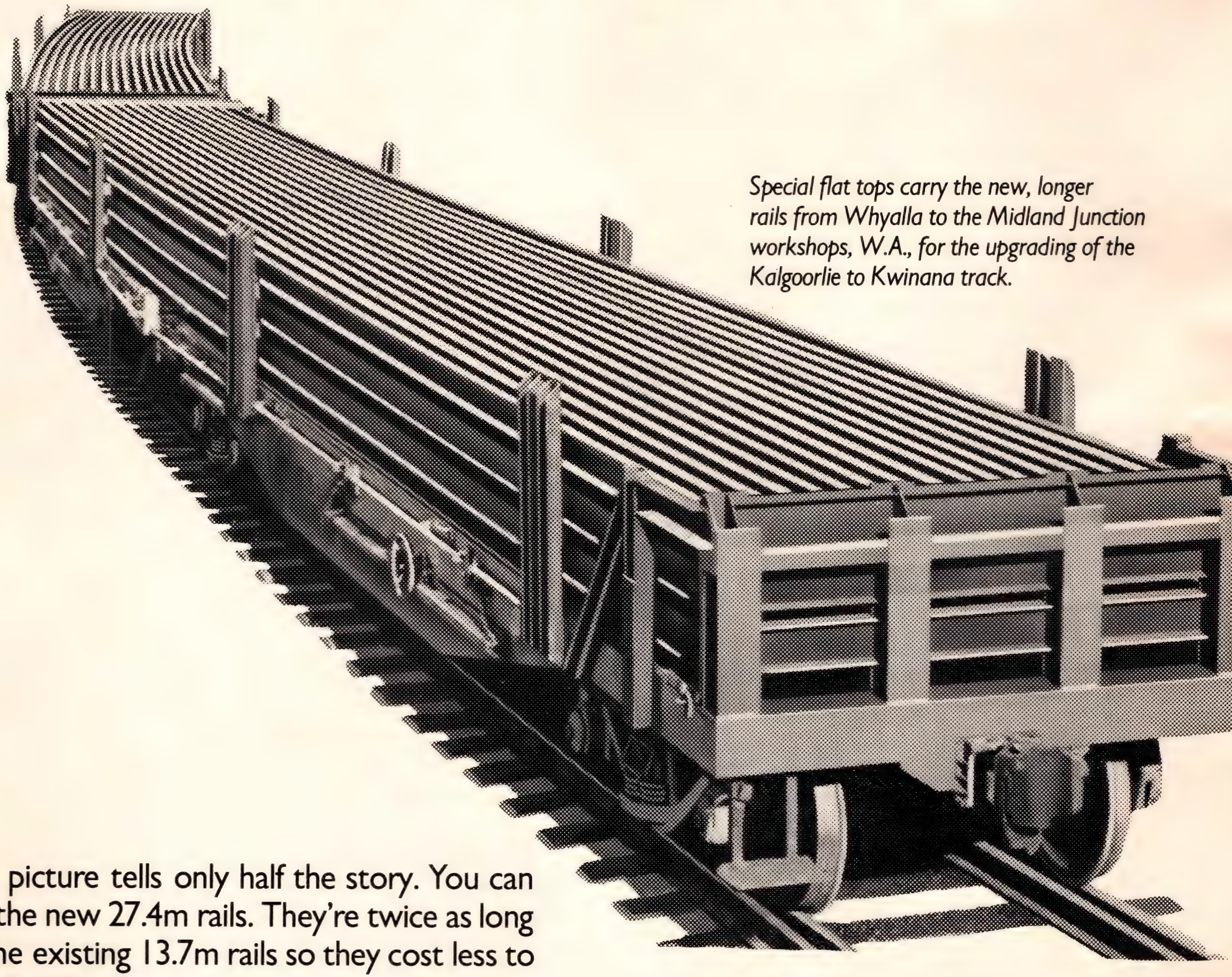
The line to Hurstbridge has certainly changed. Old-timers around Eltham can still remember the days when you didn't go to the station to catch the train. You just stood on the side of the track and they stopped the train!

In more recent times, it was only a decade ago that services beyond Eltham had to be suspended while major repair work was carried out after disastrous bush fires swept along the Diamond Creek.■

Steam Rail Victoria is running more than eighty excursions this year, a significant jump from 57 last year and 47 the year before. More than 20,000 people will take part in the programme and two K class locomotives will provide the service; a third which is being restored should be soon available to augment it.

The three locomotives are maintained by the excursion revenue.

New 27.4m steel rails from BHP cut corners on costs.



Special flat tops carry the new, longer rails from Whyalla to the Midland Junction workshops, W.A., for the upgrading of the Kalgoorlie to Kwinana track.

The picture tells only half the story. You can see the new 27.4m rails. They're twice as long as the existing 13.7m rails so they cost less to install and maintain.

Half the number of joints cuts your welding costs and doubles your throughput.

MAKING TRACKS

And you can see how BHP and Australian National Railways have made it easy to transport the new rails from the mill to the welding shop, in specially designed flat-tops.

Notice how the rails flex between the two cars on the curved track.

What you can't see is that the new rail is prime quality 60kg steel made to Australian Standard AS 1085.

Nor is it obvious that the reduction in number of welds reduces the potential for track defects.

You may see these breakthroughs as a happy coincidence. In reality, they are the culmination of active co-operation between BHP and the Australian Railways systems, and continued investment in production facilities by BHP.

This is only the beginning. BHP is developing a major rail track materials centre at Whyalla to meet the growing demand for high quality materials by the Australian Railways systems.

Now, the whole picture is clear. BHP can produce new 27.4m steel rails that offer economies in installation and maintenance.

BHP Steel

O&M/BHP688

Special Conciliation Adviser for PTC

The NSW Government recently announced a new initiative aimed at reducing industrial disputation between the Public Transport Commission and employee unions — the appointment of a Special Conciliation Adviser responsible directly to the Minister of Transport, the Hon. Peter Cox, and the Chief Commissioner, Mr Alan S. Reiher.

He is Mr P. Johnson, 49, a New South Wales Conciliation Commissioner since 1971 and a former senior trade union official. He will retain his office as a State Conciliation Commissioner, but will operate entirely independently on secondment as a Special Conciliation Adviser to the Government and the Public Transport Commission

Announcing the appointment, Mr Cox emphasised that Mr Johnson's prime objective in his new role will be dispute avoidance.

"The Government is anxious that the current level of industrial disputation with its consequent effect on public transport services be reduced by way of conciliation rather than confrontation."

"Mr Johnson's vast experience in industrial relations, both as a former Assistant Secretary of the Electrical Trades Union and for the past nine years as a Conciliation Commissioner, is ideally suited to this task."

Mr Cox summarised Mr Johnson's duties as Special Conciliation Adviser as follows:

- Report and make recommendations directly to the Minister for Transport and the PTC Chief Commissioner.
- On behalf of the Government and the Commission, negotiate and conciliate with employee representatives with dispute avoidance uppermost in mind.
- Enter into full-to-day liaison with the Commission's Industrial Relations staff, the Unions, Labour Council, Ministry of Transport, Public Service Board, Department of Industrial Relations and Technology and others on industrial matters.
- As a matter of practice, and wherever possible, operate in the workplace.
- Attend Public Transport Commission meetings, where appropriate.

"I must emphasise," added Mr Cox, "that the cornerstone of the Special Conciliation Adviser's role is impartiality, allowing him to mediate, conciliate and negotiate effectively on behalf of all parties."

"In this respect I should point out that Mr Johnson's appointment has the full support of the New South Wales Labor Council and its affiliate unions. His expertise in the industrial relations field is widely known and Mr Johnson is held in high regard by Government Authorities and unions alike."

For the Bookshelf

Handbook of Public Transport Statistics (4th edition — 1979)

Many months of research have gone into the collection and assembly of the statistical information contained in this *Handbook*, relating to over 600 cities and towns throughout the world, and presented in two volumes comprising 1,116 pages. It is an indispensable work of reference both for public transport operators and technicians, as well as for town planners, public authority representatives, transport engineering consultants, rolling-stock manufacturers and others involved in the industry.

The three principal sections contain detailed statistical information on:

Section I: Metropolitan railways/Light rail transit metros in operation, metros in construction, metros in planning.

Section II: Multimodes, surface transit with particular reference to bus transport, tramways and tracked transport, trolleybuses.

Section III: Uni-mode, motorbus.

The *Handbook* contains a general description of the transport system in the 600 localities listed, including details of networks and rolling stock, timetables, fare structures and fare collection system, operating statistics, and numerous technical tables.

The cost of the publication is $US110; and orders should be addressed to Union Internationale des Transports Publics, 19 Ave. de l'Uruguay, 1050 Brussels, Belgium.

Tenders and Contracts

Tenders invited include:

PTC — Specification No. 482, closing 23 January 1980. Design, supply and installation of Centralised Traffic Control signalling system between Junee and Albury.

QR — Manufacture, supply, delivery and commissioning of an automatic rail welding machine with weld upset stripping machine; closing 21 December 1979.

Recent Contracts include:

VR — Manufacture, installation and commissioning of communication systems and apparatus for the Metropolitan Train Control Centre Building, Melbourne (64679): L. M. Ericsson Pty Ltd ($300,525).

VR — Supply and delivery of cast-steel freight bogie parts: Bradford Kendall Foundries Pty Ltd ($432,800).

VR — Carriage and delivery of goods and parcels between Ballarat Freight Centre, Ballarat Parcels Office, and the city of Ballarat: Darling Smith Pty Ltd ($341,900).

VR — Manufacture, supply and delivery of jointless track circuit equipment for automatic signalling: Westinghouse Brake & Signal Co. (Aust.) Pty Ltd ($199,250).

VR — Manufacture, installation and commissioning of suburban train control communication system for the Metropolitan Train Control Centre, Melbourne (64770): Sepac Industries (Aust.) Pty Ltd ($166,528).

VR — Carriage of passengers and parcels between Benalla railway station and Yarrawonga railway station (64737): Read & Brack Pty Ltd ($164,964).

VR — Supply and delivery of roller-bearing axle boxes (64712): SKF (Australia) Sales Pty Ltd ($139,440).

VR — Collection, carriage and delivery of goods and parcels between Echuca Freight Centre and the town of Deniliquin: A. & R. E. Lloyd ($146,664).

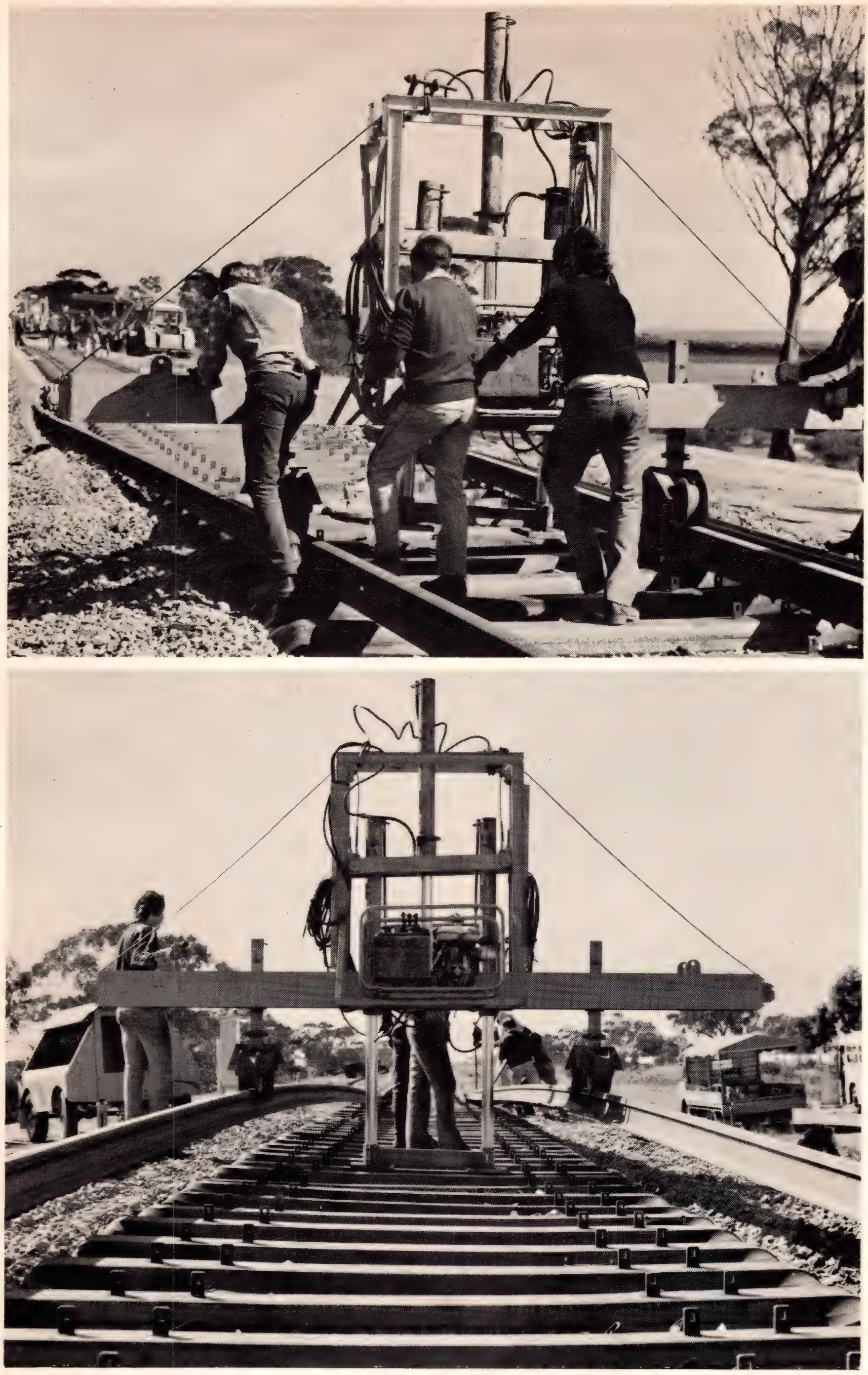
VR — Supply and delivery of axles: Woodmech Pty Ltd ($126,800).

Fourteen hundred 82 kg steel railway sleepers, designed by BHP and the Melbourne Research Laboratories, have been laid over a one-kilometre test section on the standard-gauge railway between Meckering and Cunderdin. They are the first to be laid in Western Australia.

These steel sleepers are part of the Railways of Australia Vehicle/Track Study which has the objective of evaluating the criteria for optimum designs of conventional track and rollingstock to determine lifetime costs of various designs under Australian conditions.

The research project embraces the Public Transport Commission of NSW vehicle studies and a ten-year Westrail track study programme (see *Network,* September 1979).

Westrail is constructing a number of track structure forms on 19 individual one-kilometre test areas in two sections, one between Cunderdin and Meckering and the other between Cunderdin and Tammin. They will show variations in ballast depth and hardness, sleeper type, sleeper spacing and rail size and will be an integral part of the rehabilitation of the standard-gauge railway between Kwinana and Koolyanobbing. The track will be loaded under normal operating conditions and closely monitored for deterioration of track geometry and corresponding maintenance costs.



Machinery designed by Westrail was used in the laying of one kilometre of test track on steel railway sleepers between Meckering and Cunderdin.

* * *

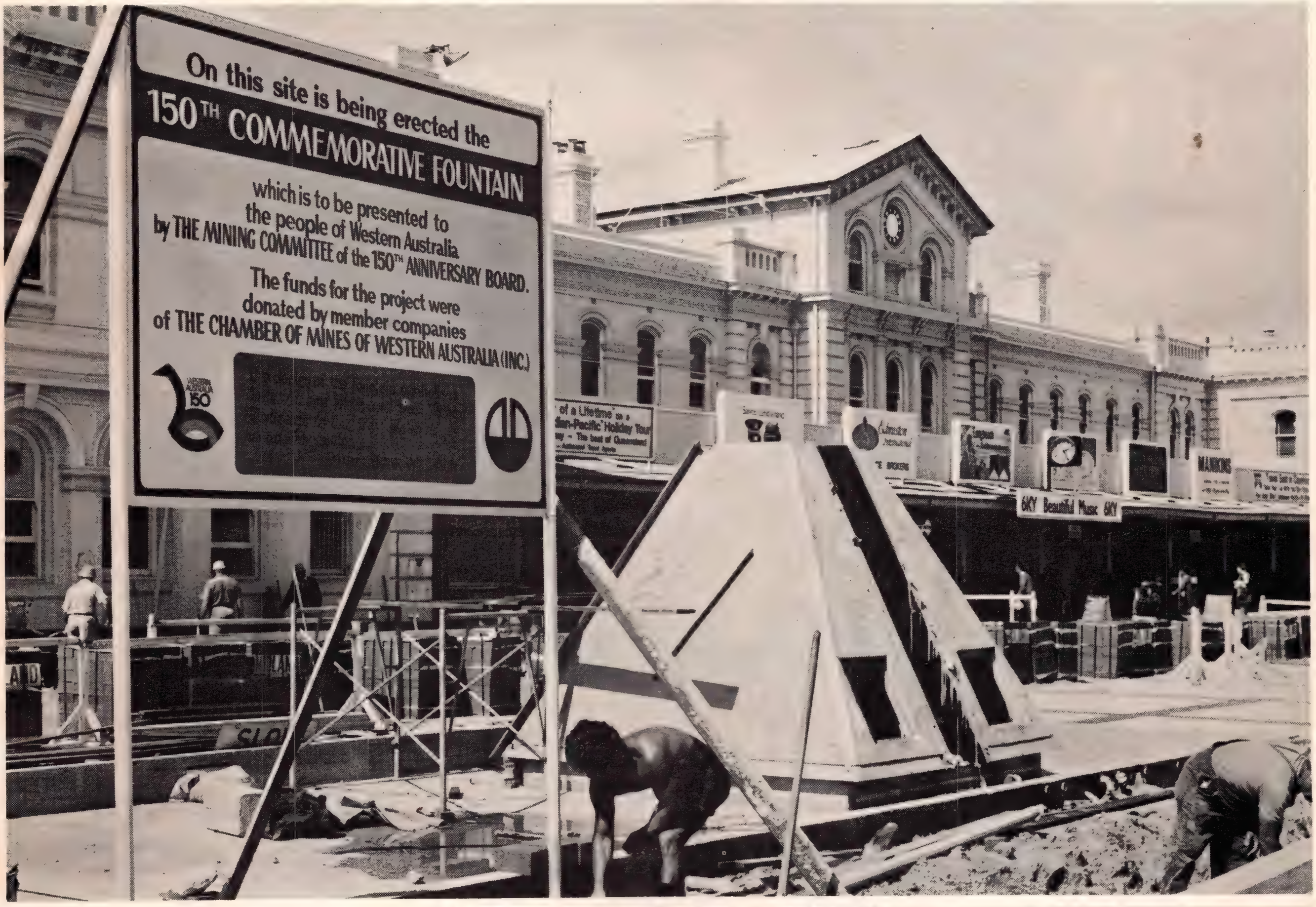
Bauxite train unloading at Kwinana.

Westrail

The concourse of Perth's City Station has been landscaped in association with the City Council.

* * *

The Commemorative Fountain, presented by the State's mining community, is now being installed there.


On this site is being erected the
150TH COMMEMORATIVE FOUNTAIN
which is to be presented to
the people of Western Australia
by THE MINING COMMITTEE of the 150TH ANNIVERSARY BOARD.
The funds for the project were
donated by member companies
of THE CHAMBER OF MINES OF WESTERN AUSTRALIA (INC.)
150
6KY Beautiful Music 6KY
MANIKINS

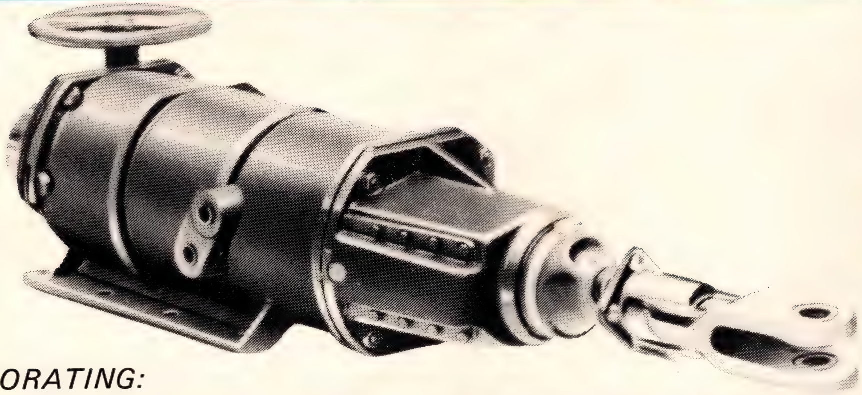
Piping an open drain under the standard-gauge railway adjacent to the new flashbutt welding depot at Midland posed a few engineering problems recently. Twelve metres of the 1200 mm concrete pipe had to be pushed under the railway line by a system of hydraulic ramming.

A two-man team worked inside the pipe drilling out soil ahead of each 1.2 metre section, and loading the spoil onto a small trolley following behind. As each section of pipe was pushed under the tracks the next piece was lowered into place in readiness for ramming.

The horizontal and vertical direction of the pipe and laying in after excavation was controlled by laser beam. This was the first time that a laser system had been used by Westrail.

WESTINGHOUSE

the TYPE 'HSL' BRAKE UNIT



INCORPORATING:

THE SPRING APPLIED PARKING BRAKE FEATURE

Another important advance in railway brake equipment design.

OPERATION:

During service operation the spring parking brake is held in the "brake release" position by the presence of air pressure in the spring brake chamber. Under this condition the service brake cylinder and slack adjuster are allowed to operate independently.

Venting air pressure from the spring brake chamber causes the spring parking brake to apply automatically.

FEATURES:

- **Unique manual quick release. Approximately 5 revolutions of shaft provide full "brake release" condition of the spring parking brake actuator.**
- **Automatic Re-set. Following manual operation of the spring parking brake, restoration of air pressure fully releases the brake and re-sets the mechanism for automatic operation.**
- **Manual Application. The spring parking brake may be applied by manual rotation of the shaft provided, following manual release.**
- **Proven Service Brake. The service brake cylinder and slack adjuster portion of the "HSL" unit is based on the "JSL" type, of which many thousands are in service throughout the world and in excess of 3 500 units in Australia.**
- **Leakage Protection. Seals are arranged between brake cylinder and spring brake chamber such that leakage from either is vented to atmosphere. Thus leakage cannot interfere with normal brake operation.**

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SOUTH AUSTRALIA: 207 Angas Street, Adelaide, 5000. Tel. 223 1177
WESTERN AUSTRALIA: Unit 3, Lot 66, Sheffield Rd., Welshpool, 6106. Tel. 451 4287
NEW ZEALAND: Westinghouse-McKenzie-Holland (N.Z.) Ltd., Rata St., Naenae. Tel. 67 7016

Figures and Comments from NZR's Annual Report

NZR's operating deficit for 1978-79 was $47.3m compared with $37.8m the previous year, according to the annual report of the Railways Department recently tabled in Parliament. Revenue from the whole undertaking was $299.5m (up 12.4%); expenditure totalled $346.8m (up 14%).

There were revenue increases of $23,132,639 in rail goods, $4,767,782 in rail ferries, $3,169,921 in road services, $1,059,269 in rail passengers, $412,573 in departmental housing rentals, $325,747 in catering, and $212,550 in miscellaneous non-operating items (including an increase of $28,009 in advertising revenue).

The overall increase in gross expenditure of $42,602,402 resulted from markedly higher wage rates and increased allowances and continued increases in prices for materials and services. Despite these increased costs, however, the Cook Strait rail ferries increased their operating surplus from $1.6m in 1977-78 to $3.2m.

Commenting on the annual report, the Minister of Railways, Mr McLachlan, said the volume of traffic presented for transport continued the declining trend begun last year, but the rate of decrease was reduced and there are now signs that the level of traffic may be tending to lift.

"The overall volume of freight carried by rail fell by only 855,700 tonnes or 6.8 per cent to 11,721,536 tonnes and this was a most creditable effort in view of the increased competition from other transport at a time of lower economic activity and the various industrial disputes which affected some of Railways major customers," said the Minister. "There was an increase of 10 km in the average haul and a decrease in net-tonne-kilometres of 3.5 per cent to 3,281 million."

"While the extent of the operating deficit is disappointing, it is important to note that, despite two very difficult trading years, this deficit, at $47.3m, is considerably less than in the last year of the previous administration when it reached $62.9m. In that year interest on loans amounted to only $3.6m and that factor enabled the overall deficit to be held at $66.5m. In the year just ended interest charges on loans from the International Bank for Reconstruction and Development, on overseas credits for capital equipment, and on National Development Loans, amounted to $23,534,526."

* * *

In the 1978-79 financial year, New Zealand Railways passenger operations and branch lines classified as "social services" fell at least $51.2m short of the requirements which would have been expected of a normal commercial operation.

In the annual report, the General Manager of Railways, Mr T. M. Hayward, included a new table to highlight the financial impact of providing social services.

He pointed out that in reporting on the net result it had been customary to refer to several broad profit centres and also to comment on the losses incurred in the provision of passenger services, the losses being an assessment of the difference between the direct costs of operating the services and the revenue earned.

"A better understanding of the overall result would be provided," he added, "if the full shortfall in revenue (i.e. the difference between the revenue earned and the revenue which any normal commercial operation would require from its various activities) was stated in respect of the many unprofitable services of a social nature which the Department is directed to provide, as these are the services which so heavily weight the final out-turn. Work is continuing to establish the full financial impact of these services, recognising that it will be virtually impossible to segregate the costs where there is a mixture of both commercial and social content in any particular activity.

"The new picture is not yet complete, but the figures which are available in respect of the year just ended are broadly as follows:

	Shortfall from commercial requirement $m
Suburban rail passenger	17.0
Suburban road passenger	2.3
Long-distance rail passenger	19.2
Branch lines	12.7

The remainder of the deficit, after off-setting the profitable sectors, is largely attributable to the provision of further social services where the figures have not yet been quantified because of the complexity of separating the details of joint social/commercial activities."

Mr Hayward pointed out that the escalating burden of costs in the social sector had become very heavy and could not be carried by the earlier system of cross subsidisation. "Additionally there are the costs of maintaining certain services which are now of doubtful validity in that the purpose for which they were first introduced is no longer present to a sufficient degree.

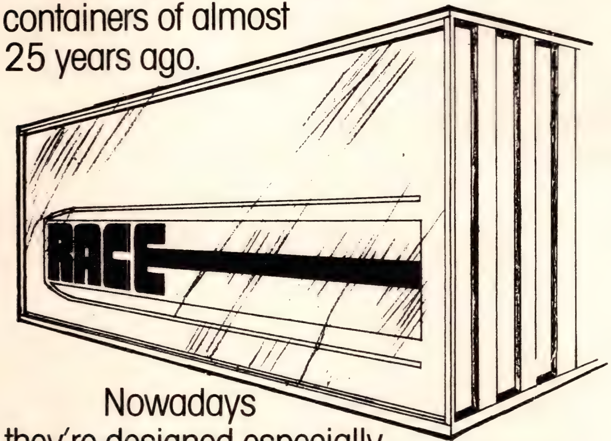
"All these matters are of very great concern to Railways management and on 26 February I issued a publication entitled *Time for Change*, which explained the position of Railways and stated that a complete reappraisal of the whole nature of the overall transport operation was necessary. That reappraisal is now well under way and action is already being taken to rationalise and improve the nature and pattern of the operations, particularly in the passenger sector.

"An important feature of the document *Time for Change* was the emphasis placed on the need to quantify the costs of those services which are continued because they have proven an adequate social benefit. For the year just ended the picture is only partially complete, but in the coming year this fresh presentation will be developed further to provide a better understanding of the results shown in the profit and loss account.

"At the same time, the exercise on Railways financial objectives will be continued, the main element being that as the Department does not have complete autonomy in determining the range and level of services it provides or in setting the broad level of charges, its purpose essentially must be to provide the services directed by the Government as economically and efficiently as possible."

IF YOUR FREIGHT ISN'T IN THE R.A.C.E.* LINE YOU COULD BE ON A MORE EXPENSIVE TRACK.

R.A.C.E.* containers have come a long way since the earliest railway containers of almost 25 years ago.



Nowadays they're designed especially for the freight they carry, from perishables to hardware and automobile parts.

Unlike I.S.O. containers your standard R.A.C.E. container takes two standard Australian pallets side by side and ten on the floor... and they're easily loaded.

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For the lowdown on R.A.C.E. contact your nearest rail freight expert. He's willing, able and anxious to help you... and he's listed below.

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RAIL FREIGHT. ENERGY SAVING AND EFFICIENT.

ROA 313

The Window Seat

Mr Ian J. Reiher has been appointed Secretary for Victorian Railways, following the retirement of Mr A. Augustine.

Mr Reiher, who studied law at Melbourne University, was previously Solicitor for Railways and has been with VicRail since 1952. He was admitted to the bar of the Supreme Court of Victoria in 1975.

As Solicitor for Railways he was heavily involved in the land acquisitions and transactions necessary for the establishment and construction of the underground loop, acting on behalf of the Melbourne Underground Loops Authority.

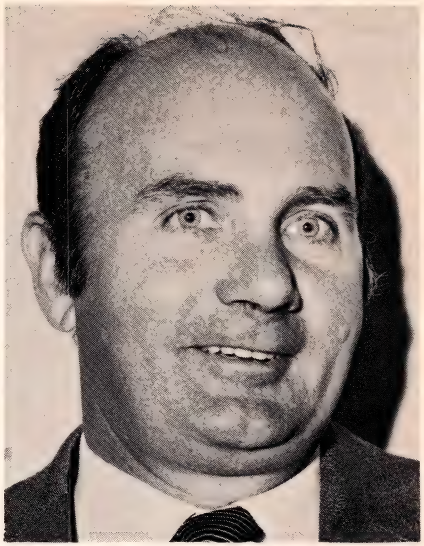
Mr Reiher is also Secretary for VicRail Pipelines Pty Ltd and acted as solicitor in the formation of ARRDO (Australian Railways Research and Development Organisation).

Mr J. W. Davies has been appointed Deputy Chief Commissioner of the Public Transport Commission of New South Wales, replacing Mr J. Trimmer who has taken up the position of Chairman, NSW Government Insurance Office Board.

Mr Davies, who is 54 years of age and an ex-serviceman, is a Bachelor of Economics and was previously Deputy Chairman of the Public Service Board, having served in that capacity since July 1971.

During his career Mr Davies has had extensive experience in the NSW Treasury. He was also a member of the Development Corporation of NSW (1966/68), Vice President of the Hunter District Water Board (1968/71), Chairman, Archives Authority of NSW (1972/79) and a member of the Opera House Trust Finance Committee (1977/99). He has served on many committees specially established by the Government, represented the State at many conferences with the Commonwealth Government, and during the period 1964 to 1971 was a senior member of the Advisory Group which accompanied the Premier/Treasurer to the various Premiers' Conferences and Loan Council meetings.

In the field of community activities, Mr Davies is Chairman of the St John Ambulance Association.



Mr R. A. (Ron) Robertson, who has been appointed to the new position of Manager Sales in Westrail's re-structured Marketing Branch, is well-known in transport circles as past-Manager of Westrail's Kewdale Freight Terminal and because of his two years participation in the Southern Western Australia Transport Study (SWATS).

On discharge from the RAN, he started his railway career as Station Assistant at Brunswick Junction in 1949 and spent much of his early railway life in the South West.

In 1972 and 1973 he was Project Officer for the operational planning and introduction of the Forrestfield Marshalling Yard; and he held the position of Freight Terminal Manager, Kewdale, from 1974. During 1975 he was seconded to the SWATS team and later to post-study work in the Management Services and Secretary's Branches.

Mr Robertson was appointed District Traffic Superintendent for the Southern District, based at Narrogin, in 1978 and was responsible for the area bounded by Beverley, Albany, Corrigin, Kondinin and Hyden.

Mr Vince Graham, Project Manager, Mount Thorley Railway and Project Manager, Balmain — both vital posts connected with the haulage of coal — is one of 57 Churchill Fellows chosen from 780 applicants across Australia. These Fellowships are awarded to young people who show promise of future achievement, and to older Australians whose achievements are already substantial. They enable the recipients to travel overseas with financial support to undertake studies or an investigative project of a kind not fully available in Australia.

During his eight weeks overseas next year, Mr Graham will visit railroad companies and systems which haul large quantities of coal. He will be investigating the planning and control procedures for coal-train operations, industrial matters, and aspects of marketing and freight controls.

"Cars a Luxury" A Sydney *Sun* survey recently revealed that Sydney's car commuters pay hundreds of dollars more a year than many workers who go to work by public transport.

The *Sun* survey found that some commuters were spending up to $25 a week extra for driving to jobs in the city in preference to going by train or bus or ferry, or a combination of these forms of transport; and this figure excludes parking fees which range from $1.50 to $4.00 a day!

The *Sun's* most informative survey was based on an estimated running cost of 5.7 cents a kilometre for an average Sydney car. It was worked out on the basis that the car would consume an average of .14 litres of petrol per kilometre and cover a distance of 16,000 kilometres each year.

In only 3 of the 118 suburbs checked by the *Sun* was the cost of driving to work less than the public transport fare — and then only by a small margin.

CP Rail won the International Golden Spike, awarded annually by the National Safety Council in the USA for outstanding public and employee safety activities. It is the 25th consecutive year that CP Rail has won the award.

Its safety programmes included:

(a) School presentations by rail officials to indicate the dangers of trespass and vandalism.

(b) Encouragement of "near miss" reporting — a description and/or the number of any vehicle whose driver took any unnecessary risk at a road crossing. A registered letter then explained to the driver the serious risk incurred. In some cases the reports were forwarded to local authorities.

(c) A "Be Seen-Be Safe" campaign, to counter the hazards to which children are exposed by shorter daylight hours in winter.

(d) Off the job safety. Items of many kinds concerning household hazards and offering defensive driving and general safety tips were sent directly to employees' homes by mail.

CP Rail's techniques to spread its message include audio-visual productions, posters, pamphlets and displays. Its officials take the programmes to schools, clubs, the media, or to any other group concerned with public safety awareness.

MC902

Australian National Railways general manager, Dr Don Williams has announced three senior head-office appointments.

Mr Tom Williams joins ANR as Assistant General Manager from the Federal Department of

Transport, Canberra, where he has been the Assistant Secretary, Rail Branch, for the past two years.

Educated at Fort Street School, Sydney, and at the University of Sydney where he graduated in Arts, he joined the Commonwealth Department of Trade and Custom in Sydney in 1952 and since that time has worked in the Federal departments of Trade, Shipping and Transport and the Tariff Board.

From 1973 to 1976 Mr Williams was Secretary to the Maritime Industry Commission of Inquiry.

* * *

Mr Merv Nayda, Assistant General Manager (Engineering and Planning), joined the former South

Australian Railways as an apprentice fitter in 1941.

He was educated at the Quorn High School, at the South Australian School of Mines, where he obtained his Diploma of Electrical and Mechanical Engineering, and the University of Adelaide from where he holds a degree of Bachelor of Technology (Mechanical). Previously ANR's Chief Planner, Mr Nayda succeeds Dr D. G. Williams, who was recently appointed General Manager.

* * *

Mr Des Smith, appointed Chief Civil Engineer, succeeds Mr George Ryan, who retired last

month after 38 years' railway service.

Mr Smith was formerly ANR civil engineer, Northern Region. He graduated in 1953 from Melbourne University as a Bachelor of Civil Engineering and joined the former Commonwealth Railways in Port Augusta in 1955.

In recent years, he has been closely involved in the planning and construction of the new Tarcoola-Alice Springs standard-gauge railway, and a ten-year programme of major rehabilitation work on the Trans-Australian Railway.

Comsteel (Commonwealth Steel Co. Ltd) is to supply Indian Railways with wrought steel wheels ($4.092 million) and tyres ($1.676 million) for passenger coach, freight wagon and locomotive applications.

Indian Railways, encompassing some 60,000 route kilometres, is one of the world's largest systems; and Comsteel is hopeful of further orders from this major market.

In addition to India, Comsteel has exported railway products in recent years to many countries, including Pakistan, Malaysia, New Zealand, South Africa, Taiwan, Thailand and Sri Lanka.

A totally new wheel machining centre, computer numerically controlled (CNC), maintains size consistency, surface finish and weight reduction, together with maximum overall quality.

* * *

A Super 8mm version of "A Cinder in Your Eye", a popular film for rail enthusiasts, has been made and released by Tasmanian Film Corporation, P.O. Box 1344, North Sydney, 2060. It runs for twelve minutes and costs $60.65.

The film records what must have been the last occasion a pair of steam locos, pulling six coaches, were seen on the Tasmanian system. The Super 8mm version was made available after discussions with the Rail Transport Museum (NSW) and the Australian Railway Historical Society.

* * *

Canterbury Provincial Railway data, sought by Mr I. Richards (*Network,* Oct. 1979) following publication of an 1864 photograph in the June/July issue, was supplied immediately.

Opened in 1862, the line was operated by its builders, Holmes & Co., until 1868 when the Provincial Railway took it over. It was converted from broad to narrow gauge in 1876 to conform with the overall NZ network. The story is told in W.A. Pierre's *Canterbury Provincial Railways.*

* * *

Flexi-Fare, in the form of books of pre-paid travel vouchers which are sold at a 10% concession compared with ordinary single and return fares, was introduced by VicRail on November 1 to assist suburban passengers who travel frequently but not every day of the week.

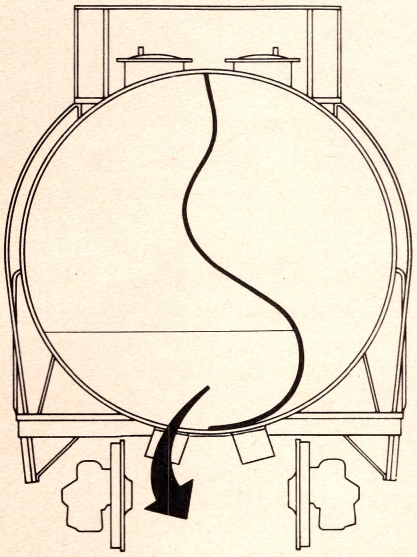
The vouchers themselves are not available for travel, but must be exchanged at booking offices on the basis of one voucher for a single ticket or two for a day return. The vouchers are in books of 20, for the number of sections the person normally travelled; they will remain valid for an unlimited time and will be transferrable from person to person.

Normal unlimited-travel weekly tickets will still be issued, but suburban monthly periodical tickets were abolished in September because there was very little demand for them.

A new road/rail/sea terminal at Acacia Ridge, Brisbane, has been opened by Total Transport Service, a unit of Mayne Nickless Ltd. The new complex, built at a cost of $2.5 million, covers 2.8 hectares (7 acres) and is the largest and most comprehensive of its type in the Southern Hemisphere. Its rail facilities incorporate standard, dual and narrow-gauge lines.

In addition to the ultimate in fire protection installations, the complete complex is protected by the Australian-designed "Computa-Guard" system, which ensures constant scanning of the terminal on a 24-hr basis.

Completing a dual-gauge track installation at Acacia Ridge.



Goodyear's tank car divider. Through the versatility of rubber, Goodyear Aerospace Corporation has devised a way to get twice as much use out of a railroad tank car, by eliminating the need to transport it one way empty.

A rubber-coated fabric diaphragm running lengthwise down the middle of the tank acts as a divider. When filled, from either side, the floppy diaphragm forms a liner against the opposite wall of the car, thus enabling it to carry one liquid one way and another on the return trip. The concept has been successfully tested by the Union Tank Car Co. of Chicago and Amoco Oil making 30 round-trips over a one-year span with no contamination of either product being shipped.

On the first leg of each trip, base lube oil was taken from an Amoco refinery. On the return trip, the diaphragm was flopped to the other side of the car and lube oil additives were hauled to the refinery.

The rail car used in the test was a 23,500 gallon (89,300 litre) cylindrical tank car, fitted with two sets of inlet and outlet valves. The diaphragm is made of nylon fabric coated with oil-resistant synthetic rubber. Goodyear is now working on another coated diaphragm to divide food products.

* * *

NZR container traffic growth. Export containers moved by rail at New Zealand terminals reached a record of more than 86,666 last year, according to the report of the Railways Department for the year ended 1978-79. This compared with totals of 63,298, in 1977-78 and 38,315 in 1976-77.

A similar number of empty or import containers was moved in each year, and in addition last year more than 23,000 twenty-foot container equivalents of export cargo and a similar number of empty or import containers were hauled by rail to and from roll-on roll-off or conventional ships.

The primary crusher for the Readymix mobile plant arrives on site near Goulburn.

Mobile ballast crusher on Sydney-Melbourne upgrading. The Readymix Group (NSW) has commenced crushing stone for rail ballast in a contract awarded by the Public Transport Commission of New South Wales. Three hundred thousand tonnes of rock will be crushed over a five-month period from a new site 15 km from Goulburn and will be used in the upgrading of the main Sydney-Melbourne rail link.

To undertake this project, Readymix has installed one of its new Kangaroo mobile crushing plants, which enable the company to undertake high demand contracts or projects in country areas.

Readymix now has ten mobile crushing plants working throughout Australia. They can be dismantled and re-erected in a matter of days, and their capacity, to crush 450 tonnes of rock per hour, is equivalent to that of most major permanent plants.

Whether you operate glamour, ordinary or heavy haulage trains, FIST-BTR will maximise your track performance

The FIST spring clip with the BTR baseplate on concrete sleepers is an outstanding combination for maximum track performance, whether you operate passenger, freight or particularly heavy haulage. There are just three simple robust components which positively interlock to prevent relative movement between the rail, sleeper or components themselves.

This means low initial cost and minimum track maintenance. The FIST-BTR rail fastener has good insulation properties, is easily assembled and has the proven performance of twenty million sets in various world railways.

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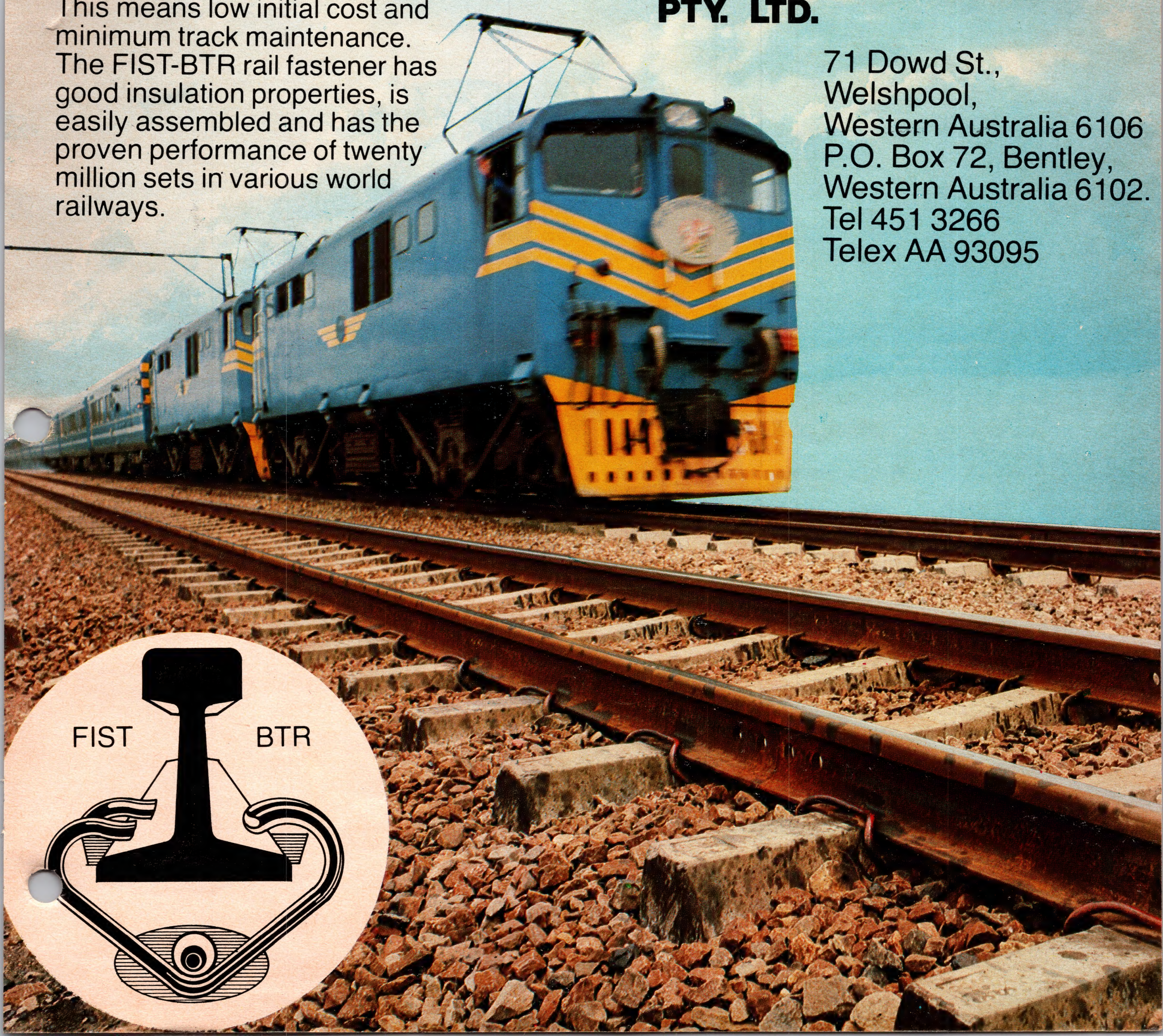
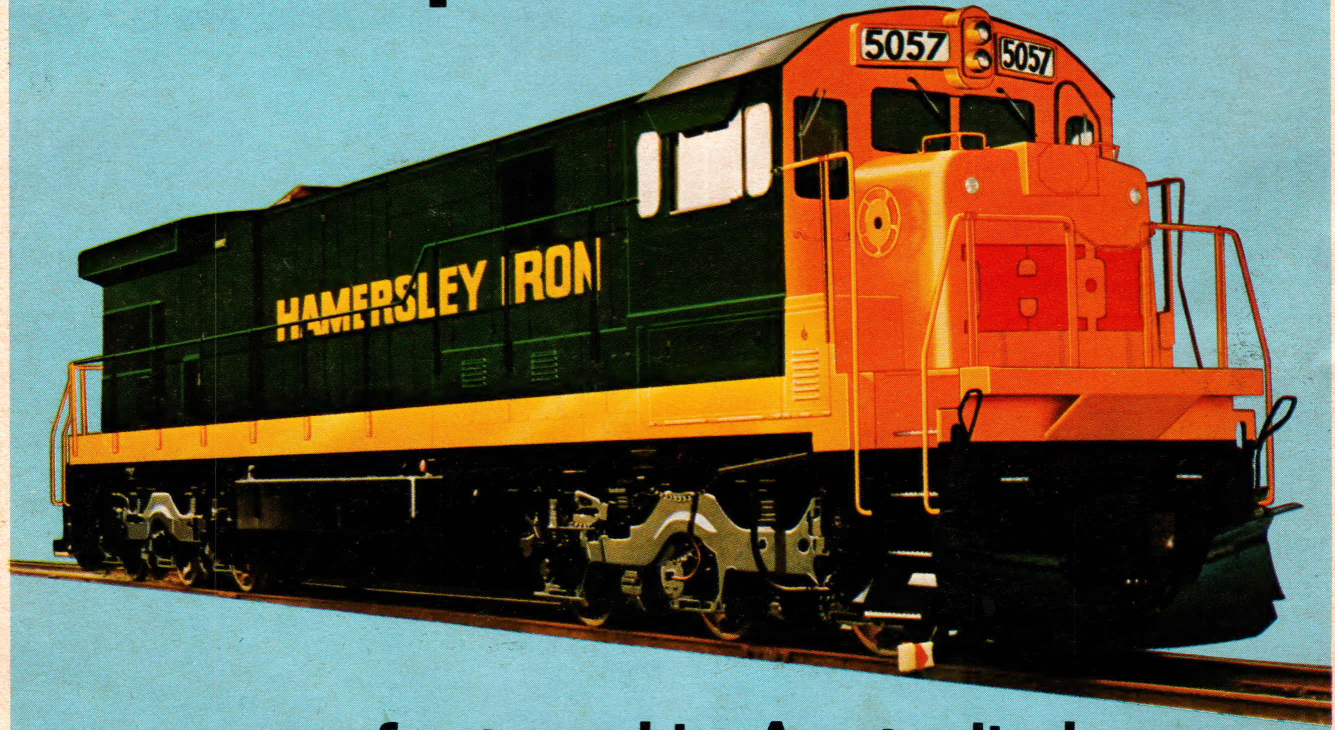


NEW SERIES 3600hp LOCOMOTIVE



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Less than a year ago, a new locomotive with more than 70 engineering innovations and design advances went into service in U.S.A.

The sum effect of these innovations raised the performance level of rail motive power and immediately began demonstrating a new standard of customer service. The New Series designation has since become synonymous with the finest diesel-electric technology in the world.

Through the combined efforts of A. Goninan & Co. Limited and General Electric Company U.S.A., this technology has now come to Australia. Goninan have built three 3600 hp New Series C36-7 locomotives for Hamersley Iron Pty. Ltd. under a technical assistance agreement with General Electric Company U.S.A. Each locomotive weighs 190 tonnes and is powered by a General Electric FDL series 16 cylinder diesel engine which has been specially developed for locomotive use and which provides improved fuel consumption and lower operating costs.

The result of this arrangement is truly innovative locomotives manufactured locally and destined to compile an equally impressive track record for the railroads of Australia.

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